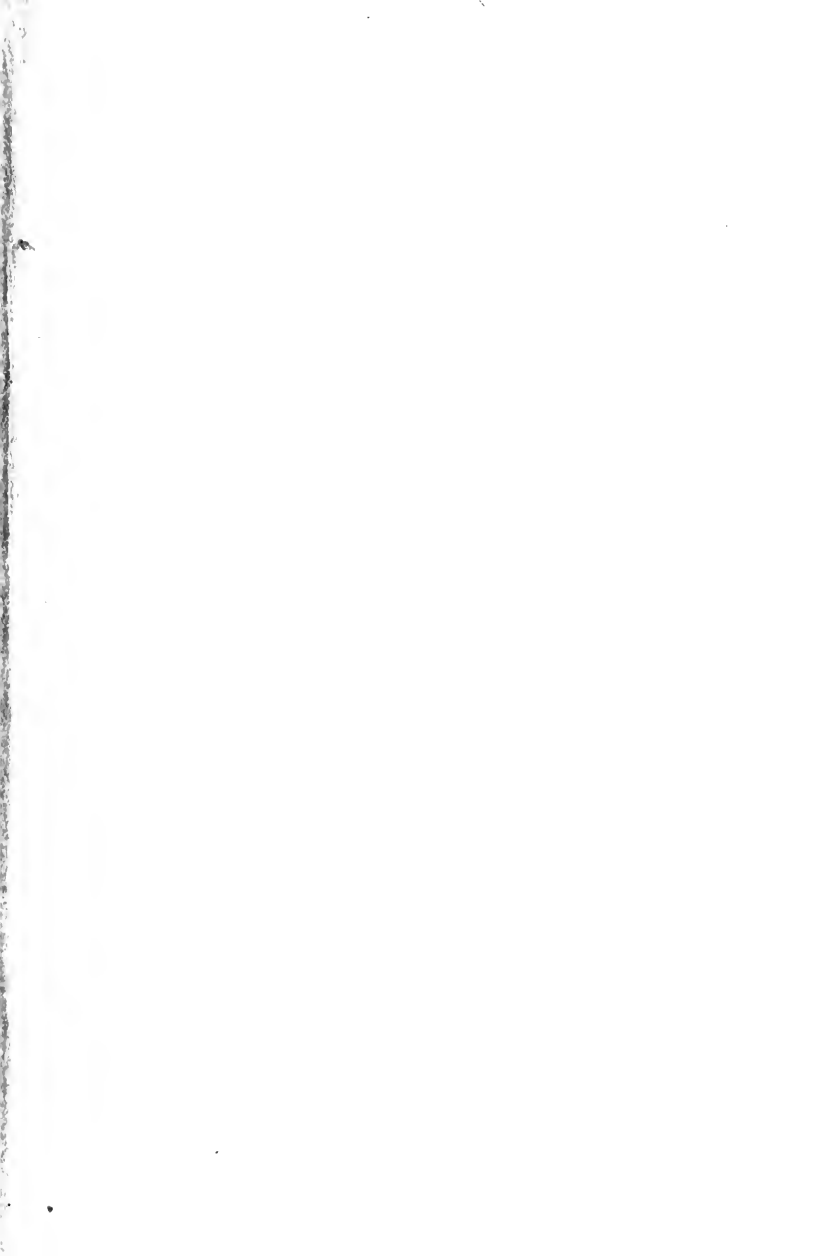
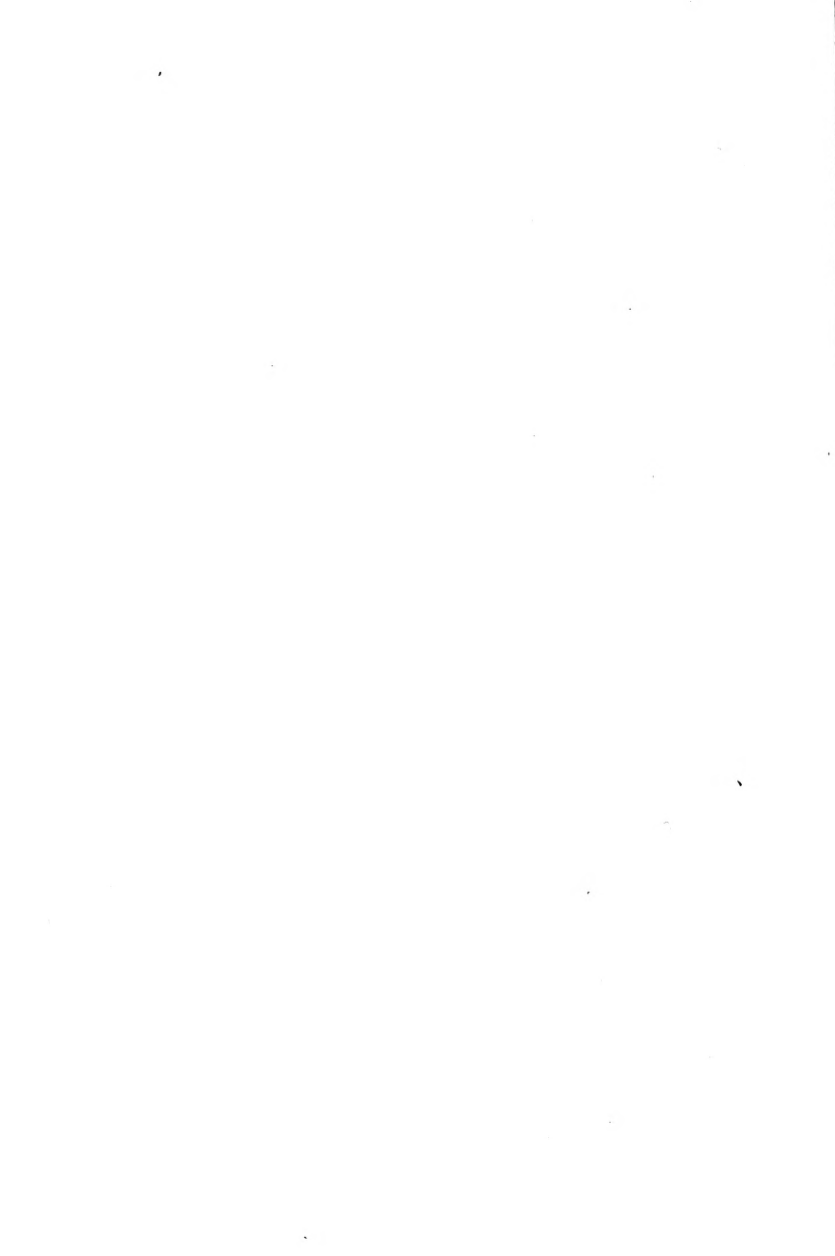


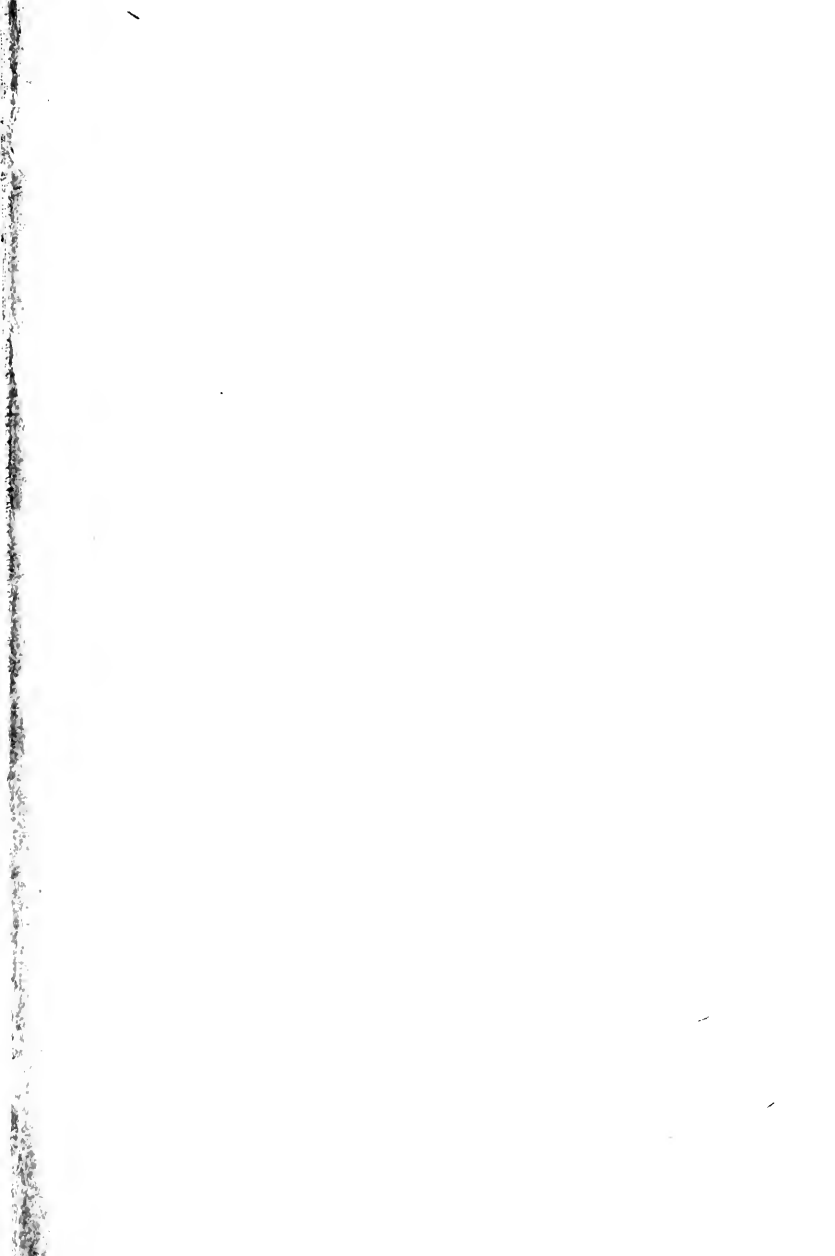
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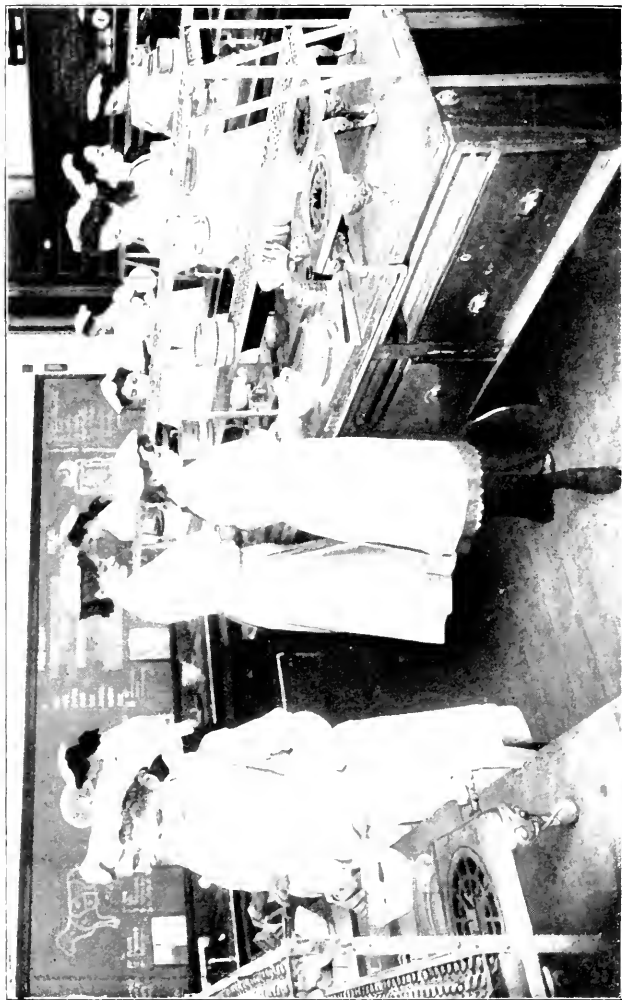












A COOKING CLASS, WASHINGTON IRVING HIGH SCHOOL, NEW YORK CITY

# CLASS TEACHING AND MANAGEMENT

BY  
WILLIAM ESTABROOK CHANCELLOR  
AUTHOR OF  
"OUR SCHOOLS: THEIR ADMINISTRATION AND SUPERVISION"

19840

ILLUSTRATED



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# YOUR EYES

Your eyes are worth more to you than any book.

Your safety and your success in life depend on your eyes; therefore take care of them.

Always hold your head up when you read.

Hold your book fourteen inches from your face.

Be sure that the light is clear and good. Never read in a bad light.

Never read with the sun shining directly on the book.

Never face the light in reading.

Let the light come from behind or over your left shoulder.

Avoid books or papers printed indistinctly or in small type.

Rest your eyes by looking away from the book every few moments.

Cleanse your eyes night and morning with pure water.

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*These are the recommendations of the Committee on Children's Welfare Association of Women Principals, New York, and the Advisory Board of Oculists.*

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TO MY FRIEND  
JOHN HOWARD DICKASON  
OF THE UNIVERSITY OF WOOSTER  
EDUCATOR

"Come ye after me, and I will make you to become  
fishers of men."—JESUS, *Gospel of Mark*, i, 17.





“In all things lives and reigns an eternal law. Education consists in leading man, as he grows into self-consciousness, to the free representation of the inner law of the unity of God, man, and Nature. The representation of the infinite in the finite, of the eternal in the temporal, of unity in diversity confronts us as the one aim of education. School means the thoughtful communication of knowledge, for definite purposes and in definite inner connection. It is the destiny of man to become, through instruction and training, a conscious, reasonable, self-active, and free being in whom necessity calls forth freedom, law, self-determination, external compulsion, inner free-will, and external hate, inner love.”—FROEBEL, *The Education of Man*. (Abridged.) 1825.



## PREFACE

THE purpose of this book is to present the principles of class teaching in respect both to instruction and to discipline. This treatment of the theory and practice of class instruction is intended for use in teachers' reading circles and as a text-book in professional schools of education. It is a development of systematic courses of lectures summer and winter in the Universities of Chicago and of Wooster, and in George Washington University, and of occasional lectures at various other universities, at several normal schools, and at many teachers' institutes.

In an experience as superintendent of schools in four different cities—Bloomfield and Paterson, New Jersey; the District of Columbia, both white and colored schools; and Norwalk, Connecticut, and as a visitor in fifteen hundred schools in more than half the States of the Union—I have learned that while systems of organization and of administration are many and various, presenting opposite extremes and apparently every form of compromise, the business of the class teacher is standardized in but three forms whether for East, West, North or South.

This book is an exposition of these standard forms of class teaching.

W. E. C.

TOWN OF NORWALK, Conn.



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“According to my experience, success in education depends upon whether what is taught to children commends itself to them as true, through being closely connected with their own personal observation and consideration. Without this foundation, truth must seem to them little better than a plaything or perhaps a burden. Man is impelled by the nature of the powers that he possesses to use and to train them, and thereby to develop and improve them.”  
—PESTALOZZI, *On his Work at Stanz*. 1799.



# CLASS TEACHING AND MANAGEMENT

## CHAPTER I

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### THE LEARNING PROCESSES FROM THE POINT OF VIEW OF TEACHING

Relations of learner and teacher.—Studies and exercises.—Progress of different kinds of pupils in different kinds of subjects.—Idea, function, habit, character.—Motivation, attention, interest, association, judgment, reasoning.

THE child goes to school to learn. Curiosity impels him. Or the child is sent to school to learn. His parents or relatives or officers of the law compel him to go. Teaching the child who goes to school of his own desire is not the same thing as teaching one who must be sent. Nor does the child who goes voluntarily, even eagerly, learn at school in the same fashion as does the child who goes unwillingly.

The purpose of the school-going of the child is to learn knowledge and habits. What and how much he learns depend upon many things,—his own curiosity and docility, his health and strength, his mental powers; the scholarship, the industry, the skill and the char-

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acter of his teacher; the opportunities of the school, its building, equipment, apparatus; the subjects taught; the books and supplies used; his comrades.

In its simple and original sense, to "learn" means to "go over," to "travel again." In its simple and original sense, to "teach" is to "show" or to "tell." The teacher shows the learner what to go over and how to go over, while the learner, hearing what the teacher tells or seeing what the teacher shows, travels again the road by which the teacher has come to knowledge.

Learning from a teacher is a wonderful economy, for it saves learning by experiment with its constant errors and many failures and with its few successes. Teaching those who do not yet know has been an essential part of the transmission of the arts of life from those who know to the ignorant, in every period of culture and civilization. School-teaching is but one phase of the whole matter, though in the modern age it has come to transcend all other phases in the general interest of men. And schooling, which is the preparation of childhood and of youth in economic leisure for activities and enterprises of life that are not open to the unschooled, is now part of our common democratic faith and practice.

Learning, then, is going over,—once, twice, perhaps many times, till one knows, and often many, many times after one knows. Going over again and again till one knows is one kind of learning; going thereafter is another kind of learning, so different that we no longer use this term. The first kind of learning has several stages in it,—seeing or hearing, understanding, remembering, trying, succeeding, doing, repeating, drilling. Suddenly, there comes the consciousness that one really

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has learned and now knows. With this discovery, the first kind of learning ends—unless or until one forgets. Seldom, however, does one really forget what one really has learned. This “forgetting,” as it is called, is getting something else in the way, as in the confusion due to excitement; or it is failing to get anything at all, as in the empty-minded weakness of fatigue or ill-health. The only forgetting that is serious is due either to long lapse of years or to great changes either in the cell-structure or relations of the brain, as in childhood or severe illness or in the associations of one’s life, as removal to distant scenes. Even so, often one remembers, years and years later or thousands of miles away, things that one supposes forgotten absolutely.

The forgetting of the child, when asked regarding something that he learned or knew a few minutes or a few days before, is due usually to his inability to summon remembrance at will because he is full of sensations and motivations and is not yet in control of himself. Unless due to this condition of his mental life because he is a child, his forgetting is probably competent evidence that in fact he had not learned and did not previously know what he professed to know, or was supposed to know, before.

The other and higher kind of learning, the going over of what one really does know, is using it, or functioning in respect to its subject matter. The first kind leaves one in a state of proficiency or skill; the second kind leads into science or into art or into philosophy.

Learning at school has the various stages of seeing or otherwise observing by the senses, perceiving or understanding, remembering, trying to do, succeeding therein, doing and repeating, and last drilling until one

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knows or has learned. It is a process through which one can never carry another. The teacher may show; the pupil must perform.

Here, between the teacher and the learner, arises a relation of importance. The greater the skill of the teacher, the larger is the number of those whom he or she can develop by teaching,—that is, helping to learn. A teacher of genuine skill can develop the mediocre, even the dull; a teacher of but little proficiency scarcely educates the average pupils; a teacher of no qualifications actually discourages even the pupils of talent. Good teaching, therefore, means the success of a relatively large portion of the learners in a class. And good (or true) teaching is primarily nothing else than insight into these learning processes and industry in following the suggestions of insight, for the benefit of the learners.

When it is said that “the good teacher is born,” what is meant is that he (or she) has native insight into and sympathy with the mental process of learning and a desire to help the learner forward. Whether a good teacher can be made out of a person without such insight, sympathy and desire is simply a question whether the person can be so educated as to develop this power of insight and these qualities of sympathy and desire.

Work at school is commonly classified into studies and exercises. Not to try to draw distinctions too finely here, one may say that studies are concerned with facts and principles: they are concerned with what is often called “knowledge.” Exercises are concerned with activities, crafts, arts. The difference may be illustrated by citing history as a study and drawing as an exercise. The distinction is not to be pushed too far. To write a



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composition on some historical topic is to use history as an exercise: to learn the theory of perspective in drawing is to pursue drawing as a study.

In actual class-room practice, the learning process as it is guided by the teacher in respect to a study differs considerably from the learning process involved in an exercise. To learn a history lesson, one reads the passage or listens to a recital of the facts; then one thinks about the facts, severally and collectively, trying to understand or interpret them in the light of facts and truths already known; next one recalls in due order the facts of the passage: then follows an oral or written recitation upon the topic; and this recitation is repeated and reviewed in analysis and in association over and over in drill until the topic is learned. To accomplish this process, one needs to read or to hear accurately; eye or ear must be keen and true. The next stage in the process is that of summoning enough knowledge to enable one to understand the words heard or read. We cannot teach history at all to small children because they do not yet know enough social and historical facts to understand any historical topic. We say that they do not yet know the meaning of words: what we mean is that they have as yet no content of knowledge for the words to designate. The other stages of the process,—recalling, trying to use, succeeding, doing and drilling,—are without the technical difficulties of this second stage of apperception or understanding; but they are quite as necessary for the completion of a real act of learning. When we have only the power to remember a thing and cannot use it, we do not yet know the thing.

This getting of our knowledge beyond the stage of

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mere recall, to the point where it helps us understand new facts and can perform, as it were, the mental digestive function is a mysterious enough matter. Perhaps it can be best understood by an illustration. Ever since humanity began upon the earth, it has been entirely obvious that all men are alike creatures of one universal Nature ("children of one common Father," to put this truth in religious phrase); but men were long centuries in discovering that there is a resultant truth,—that all are equal (that is, "brothers," in the religious term). At last, however, this idea or fact became a truth that went to work in the minds of men and began to overthrow governments of privilege and to establish democracy. It overthrew serfdom in Russia and slavery in America. Where this idea will end in its business of digesting the old social institutions, of course, we cannot foresee.

Perhaps another illustration will serve better. Often, a child knows verbatim every multiplication table; and yet cannot multiply either correctly or quickly. Often, he knows the rules of all the arithmetical operations involved in a problem; but cannot perform them properly.

In these instances, the idea, though remembered, is still in a compartment of the mind, as it were; but it has no power to walk up and down the hall and stairways, opening doors and shutting them, and really to live. The business of the teacher is to help the pupil learn so well that he has many important "live ideas."

Ideas should not be merely "committed to memory,"—stored like merchandise in boxes. They should not be like articles of furniture, however handsome and useful in the house,—movable at the will of the house-keeper. But they should be like trees in the orchard,

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fruit-bearing; like flowers in the garden, seed-scattering; like animals and birds and fishes, moving and alive.

In respect to an exercise, the learning process emphasizes such different stages as to seem quite different from what it is in the case of a study. The first stage consists in seeing what is done: or when this is not possible, in proceeding step by step according to the directions of one who has seen the thing done. In the normal instance, however, the learner first observes what one who knows how to do the exercise actually does. The learner may need to watch the thing as it is being done several, even many times, in order to acquire a reasonably complete knowledge of what in fact the exercise is.

The next stage is understanding what the exercise is.

As in the case of a study, when the pupil, though closely observing the exercise, does not understand it,—that is, knows too little to interpret or comprehend it,—then the subject is beyond him. This, then, is the stage for rejection of the exercise, just as it would be in the case of a topic in a study. Something else that is easier should be taught instead; usually, it should be chosen as adapted for teaching in preparation for the exercise or study that has proven on trial too hard.<sup>1</sup>

One may understand an exercise without being able to explain it in words. One usually does understand an exercise when one feels ready or at least willing to undertake it. Occasionally, a pupil of undue motor-activity is, therefore, unduly confident and undertakes what he cannot perform.

<sup>1</sup> See pages 224-228, on the locus of a study or of a topic.

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The third stage in learning an exercise is remembering in proper order the steps involved in its process and how to take these steps, which is part of understanding it.

The fourth stage is trying to do it. Then one keeps on trying again and again until one succeeds. Actually to succeed is the fifth stage.

In the case of an exercise, the steps in these two stages are often many. An exercise is likely to involve visible, or at least demonstrable, physical activity. To illustrate:—The learner is trying to learn how to paint a sunset landscape in water-color. He sees his teacher make such a picture,—sees the water, the colors, the brush, the paper, the moving hand, the beginning of the picture, its development stroke by stroke; at last, the sunset is there before him. He thinks this all out and comes to understand what was done and how it was done. The teacher has paused and stopped. He remembers what she has done. He wishes to try to do it himself. This is the imitation phase of the process of learning. We can and should imitate in respect to learning and exercise; but we cannot imitate in respect to study.

We may appear to study, though not studying; but we cannot appear to exercise without exercising.

This is one of several good reasons for putting many exercises in our school-courses. They defeat every attempt at deceit and prevent the development of insincerity and hypocrisy. A boy may claim to know either a history lesson or an arithmetic rule, without being able to put it into words. His teacher cannot well prove that he does not know the history topic at least in the sense of understanding it; but by giving

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to him a problem that involves the arithmetic rule, the teacher can easily show even to the pupil himself whether or not he understands it.

This may be made plainer by illustration from such a manual art as carpentry. A pupil may profess to know how to make a true joint: he may even be able to tell how to make one. But until he has made one, proof of his knowledge is wanting. To make a true joint,—as for a picture frame,—involves knowing tools and their uses, wood and its use, and the principles of lines and angles; and it also involves the power to direct and to control the bones and muscles of the body, to make arm and hand execute the designs of the mind. The directing and controlling of the body is a dual process in which both mind and body act,—the mind acting in unknown ways through the nerves causes movements in the muscles that control sinew, tendon, bone, and joint. Technically, the dual process is styled “psychophysical” or “physiopsychical.” When the act is conceived as initiated by the mind and proceeding into the body, the term “psychophysical”—mind-to-body—is appropriate. When the act is conceived as due to bodily impulses arousing the mind, the term “physiopsychical”—body-to-mind—is appropriate. The subject in its farther development, however, belongs rather in the field of psychology than in the present field of instruction and management.

When the pupil has passed the stage of successful coördination of mind and body so that he can perform the exercise, before he knows it in the full sense of knowing, he must repeat it again and again until performance becomes facile, steady, reliable, and at last apparently unconscious or automatic. The body now

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functions in respect to the idea of the exercise. In learning an exercise, drill is yet more important than in the case of learning a topic in a study. When drill has accomplished its perfect work so that the pupil always does the exercise well, he has reached the stage of genuine skill; and the goal has been attained. In this stage, the exercise is a habit, by which the person is controlled.

Whether the matter in hand be a topic in a study or an exercise in a craft or art, the stages are these—*viz.*, observing, perceiving, understanding, remembering, trying to do, succeeding, doing again, repeating, and drill. To travel this road under competent direction is to learn at school: to travel it without competent direction is to learn-by-oneself, which is usually too difficult to permit one to succeed.

But in travelling this road,—that is, in learning,—not all persons encounter the same difficulties in themselves. On the contrary, each person has his own characteristic difficulties in learning. In principle, the learning process is always the same; but in the concrete instances of the individuals who learn, the process takes on individual phases.

It requires but ordinary observation of men and women, of boys and girls, to see that some persons learn certain kinds of things easily while others learn them with difficulty. It requires but a little keener and closer observation to discover that, in many instances, those who learn some things easily can scarcely learn other things at all. Shrewd general students of human nature refuse to allow their fellows to be classified as “dull,” “average,” “bright”; or as “slow,” “average,” “quick”; or as “strong,” “average,”

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“weak”; or as “clever,” “average,” “stupid.” They know that “dullness” in one line is not incompatible with “brightness” in another; that the man who is stupid in respect to books is often clever with tools. Those with scientific minds see that there are certain differences of the types of temperament that affect vitally the efficiency of individuals, their morals, their intelligence, their powers to learn various things.

There are indeed two distinct kinds of humanity,—the motor or active and the sedentary or sessile. Each of these two kinds has subdivisions. We have the muscular motor and the nervous motor; and we have the corpulent sedentary and the reflective or speculative sedentary. We find these types represented in their purity in some individuals and in various combinations in other individuals. We may easily push our distinctions to the point of uselessness; even to that of absurdity. But for the practical purposes of education, we know that the learning process of a bright, active, nervous boy does not manifest itself in him in the same way when he is learning a geography or a Latin lesson as it does when he is learning to draw on paper the perspective of a box or to make the box out of wood. We know also the learning process of a slow, indolent, calm boy manifests itself both in study and in exercise differently from the learning process of the other kind of boy. We know that in the school period prior to fifteen or sixteen years of age these differences of temperament make greater differences for the teacher than any differences of sex, or of race, or of language, or of religion among the pupils. Later, the social environment and sex and race-heredity increase in relative importance; but no other difference ever

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transcends in importance the congenital difference in temperament.

The matter can be clearly seen in the examination of the whole educational process of which the learning process is but a part, though an essential part, because serving as its means. The stages of the educational process are four—*viz.*:

Motivation, intelligence, efficiency, morality.

Obviously, for the boy who is born with physical strength and energy, it is comparatively easy to acquire a proper development of motivation and of efficiency. Similarly, for the boy who is born with a reflective sedentary temperament, it is comparatively easy to acquire a proper development of intelligence. Also, for the boy born with an easy, joyous, comfortable, complacent temperament, morality (which is largely sympathy) is not hard to learn. The nervous or ideo-motor boy, who naturally jumps to do things, has already come a considerable way up the educational road, or rather he can travel it quickly to the point of efficiency. But in each instance, the converse is also true. The boy with the motor temperament, whether muscular or nervous, finds that complete and continued inhibition hard in which are developed the power and the disposition to consider a matter through to its limits. He would rather act than think. This same boy who, once having learned the habit of thinking, has then proceeded rapidly through the efficiency stage comes to trouble again in the field of morality, for he is too aggressive to concede freely the rights of others. The complacent, corpulent, cheerful boy is weak in motivation and must be stimulated right through the educational period beyond the stage of efficiency; yet when efficient, he needs



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but little training in morals, for he is apt to have much consideration for others. The reflective sedentary boy is weak in physical motivation, readily becomes intelligent through information, seldom has been brought to real efficiency, and is not likely to care enough for others and for human society as a whole ever to be wholly and broadly moral.

These observations acquire patent acceptability when we consider that, of the muscular motor, we make executives, warriors, farmers, mechanics, rulers, and all kinds of men of achievement. Of the nervous motor, we make teachers, artists, clerks, tradesmen, secretaries, editors, lawyers, preachers, doctors. Of the corpulent vital type, we make hotel-keepers, politicians, judges, cooks, and all the range of the friends of men. And of the speculative thoughtful persons, we make poets, philosophers, authors, statesmen, inventors, social reformers, impatient with things as they are. Or to put the truth exactly, the square-headed and square-faced men with the thick, muscular bodies naturally become generals, rulers, mechanics, farmers and all other kinds of hard physical workers. The steam locomotive engineer is always of this type. The long-headed, rectangular-faced men naturally become masters of the professions, active tradesmen, artists. The popular orator in the legislature is usually of this type. The round-headed, round-bodied, round-faced man who is disposed to sit and think and likewise to feel for himself and his fellows becomes, perforce of his constitution, the judge of affairs, the provider of good things to eat, the "boss" of his ward or town or State. The large-headed, triangular-faced, small-bodied man dreams of some kind of empire—of the

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reason perhaps, but sometimes of the world of realities.

In the light of these facts of the fundamental constitutions of men, it is plain that they must differ greatly from one another when they set out of themselves, or are set by others, to learning one thing and another in school or in the rest of the world of life. One rushes eagerly into the task to be learned, but soon wearies, while another begins sluggishly and develops strength and speed as he goes forward. Such are their birth fates.

Other considerations besides these attend the inquiry into the nature of the learning processes. The name of a study conveys but little information as to the mode to be followed in learning it. History taught by one method and by one set of devices is one thing, while history covering the same facts but taught by another method with another set of devices is almost an entirely different thing. In each case, the pupil who successfully learns his lessons learns history, but in many aspects his learning process varies as the method varies. In truth, he must go through the same stages whatever be the method, but the delays at the stages vary the character of the learning. One who should go from Boston to Los Angeles pausing one day in New York, two days in Chicago, three days in Kansas City, four days in Denver and five days in San Francisco would have a very different report to make from that of another who should pause a week at New York, a day at Chicago, another week at Kansas City, not at all at Denver and a day only at San Francisco. Yet each would arrive at Los Angeles with some knowledge of the route. In the same way, learning verbatim a

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good account of the battle of Gettysburg is quite a different thing from learning it dramatically in a lesson in which Seminary Ridge and Cemetery Ridge are represented by rows of furniture and the charge of Pickett's men acted out by the learners themselves. In the first case, one learns the story and how to tell it in words. In the second instance, he feels the emotions of that great event. The difference is that between literary accomplishment and dramatic or practical efficiency. It is narrative, even picturing, in words over against realization.

The trend of modern educational method is so strongly in the direction of learning by doing, whenever such a method of learning is feasible, that it is well to see clearly that this method amounts to a rediscovery of the place of working efficiency among the ideals of education. It had long been forgotten from an over-care for intelligence alone. We are soon to rediscover both personal and social morality as another and yet higher ideal.

It is a singular instance of the richness and of the close interweaving of language that while to "learn" means to "go over" and "teach" means "show," "method" means "main-travelled road." One who learns travels by a highway through a region with a guide. What the region is depends upon the subject to be learned. What the highway is depends partly upon the nature of the subject and partly upon the skill of the guide. As with the advance of civilization in a country, the engineers are ever laying out better highroads, so with the advance of culture, the scholars and thinkers are ever finding better methods in sciences, in arts, in all bodies and systems of knowledge and in

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all skills and crafts. It is a common philosophical belief that every science and every art has an inherent and essential logic that determines its method. It should be the purpose of every scientist, artist and philosopher to help find the true method and the essential logic of his science or art or philosophy. But until these are discovered, practical teachers must resort to some common principles of presenting facts and truths. These principles are grouped and systematized under such names as "inductive," "deductive," and "heuristic"; meaning respectively drawing conclusions from facts gathered, applying generalizations to new facts, and discovering or reviewing both facts and generalizations.<sup>1</sup> This is a theme belonging specifically to the question of the teaching processes but not negligible here in brief notice for one sufficient reason,—the learning process controls the teaching process, and the learning process traces the method appropriate to the field of the subject, whether study or exercise.

In consequence, the good text-book and the good lesson alike are true not only to the subject matter with which they are concerned but also to the intellectual and other processes involved in learning them.

The origin of the learning process is motivation. Mental motivation is conditioned upon developing more energy than is at once consumed in operating the body itself,—its food, digestion, metabolism, blood-circulation, etc. It is not literally true that the mind cannot work in an unhealthy body. But it is literally true that the mind operates only when there is surplus energy above the constant needs of the body for the maintenance of

<sup>1</sup> See page 36, *et seq.*

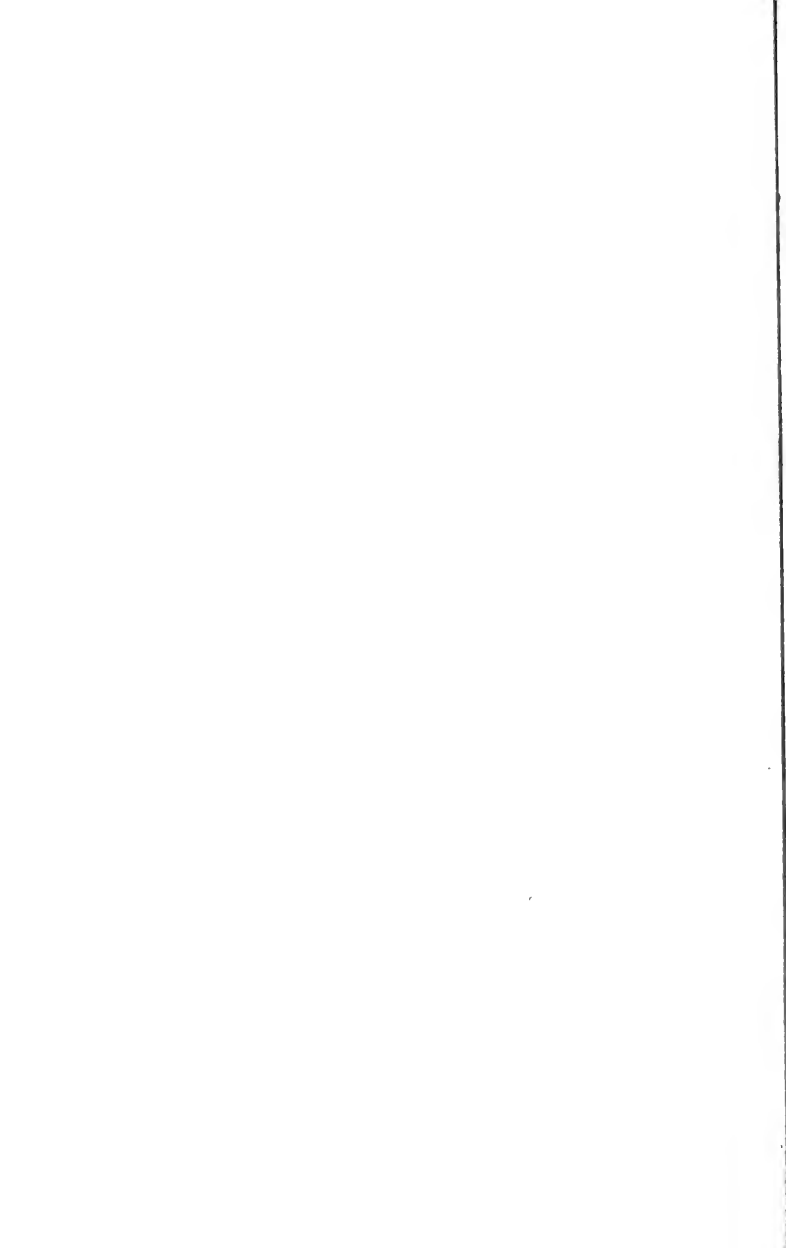




AN OUT-OF-DOOR KINDERGARTEN.



IMAL SCHOOL, SAN JOSÉ, CALIFORNIA





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its life. With this qualification, one may safely say that motivation depends upon health and strength.

Motivation manifests itself intellectually as curiosity, and physically as action, or "restlessness." It is impossible to develop intelligence in one who is without curiosity, or efficiency in one who is without activity.

Interest is curiosity toward some definite end. It presupposes some previous knowledge, however slight. Purpose is activity toward some end. It presupposes previous effort, however slight. Motivation expresses itself in its earliest mode as impulse. Its higher modes are sentiment, emotion, affection, passion, like and dislike, love and hate. The extent and the force, the frequency and the continuousness of motivation measure accurately the original and primitive educability of the individual. These are fundamental matters deep below temperament, below the psychical faculties of sensation, perception, memory, imagination, judgment, fancy, reasoning, below psychical rate, psychical field, retentiveness, and all the other matters into which psychophysiology is now making eager inquiries. These are the primary matters of power, speed, repetition and persistence in the physical constitution of the individual, his capital for living. They are deep down below the power to learn; they concern the facility and strength with which one can pursue the learning process. How much, by intelligent purpose when one has arrived at knowledge of oneself, one can change these fundamental matters of inheritance is a moot question of the practical philosophy of conduct. The soul builds the body slowly and can change it but slightly after the structure is reared.

These changes are made, whatever be the tempera-

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ment, little by little, day by day, year by year, in the course of learning one thing and another and another through the long period of schooling in civilization. The ideo-motor learn to consider and not to act too impulsively, the sedentary acquire activity, the muscular motor learn, if not to originate ideas, at least to use good ones. For the learning process is essentially the educative process. Guided, corrected, stimulated, enriched by the true teacher, it broadens and strengthens character. In this sense, not what we learn but how we learn what we learn is the most important concern in our education. Though essential, what we learn is secondary and not primary in importance.

Not to skip any necessary stage in learning any matter but to go thoroughly and faithfully, step by step and stage by stage over the road is to supplement at least in part the natural deficiencies of one's original equipment for life.

A native learning process, fairly rational in the beginning, acquires discipline and proficiency in the very business of acquiring knowledge of facts and principles. And discipline, which is habituation, is gained through marshalling facts and applying principles.

The habit of learning, which results from the constant exercising of the learning process in good school education, is the most important habit that one can form. It gives to character patience and diligence in getting facts and truths, and likewise in correcting one's own errors.

In observing the way in which pupils learn, the teacher must needs eliminate from his own vision the colors and the angles of his own individuality and cleanse himself (or herself) from any notion that conformity to his own way of learning would certainly benefit all the

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pupils. What does this pupil most need in order to realize the best of his own nature?—should be the uppermost question in the teacher's mind.

There are indeed golden moments of inspiration both to teacher and to pupils in school days; but not gold but rather hammered and tempered steel is the metal by which in this age character may most fitly be standardized. Learning all that one needs in this civilization is possible to but few. Learning even a little is hot, hard, long labor like travelling a road in the sun and wind. Easy learning there never was.

All learning requires, in respect to external information, attention—the holding of the mind to the things before the special sense. It requires, in respect to internal pictures and notion, concentration,—the holding, within the mind, of the things there, about some common center. To attend and to concentrate test at once intelligence and will, and thereby train them,—literally draw them out.

To know the learning process is to possess the first principles of the art of study and of the art of teaching.

Such is the nature of the human mind that though, in one sense, "the only way to learn is to learn one thing at a time," in another sense we cannot learn one thing at a time. In learning, one pursues a track for a time and wearies. One must then either rest completely, as in sleep, or change to the pursuit of something else. "One thing at a time" means following that road, turning neither to right nor to left until weariness sets in or success is achieved. With each period of learning, the way up to the limits of what has been learned before, grows easier. "A thing is never learned by itself" means that one fact helps to

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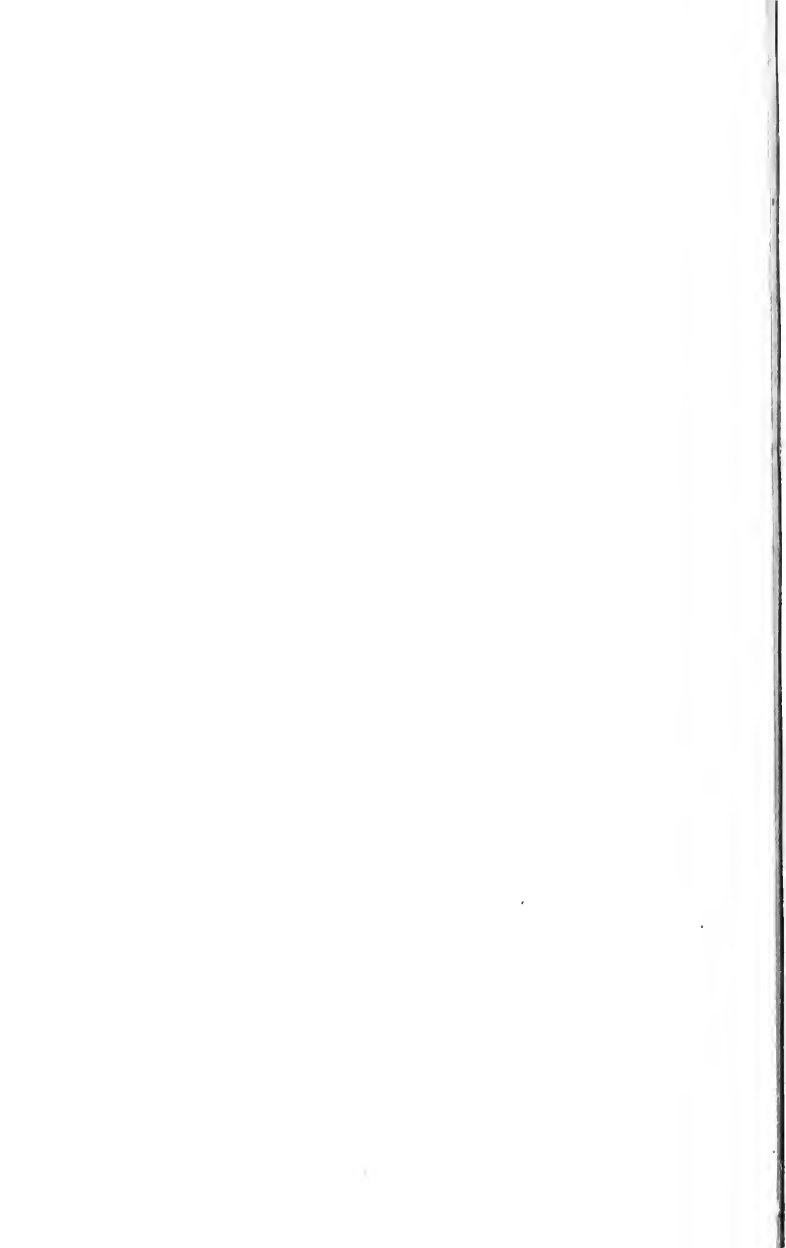
interpret another. Apperception is the merger or coalescence of one idea with another idea or with a notion compounded of other ideas. Mind is a more or less organized mass of various bodies of apperceived ideas.

To pursue one thing at a time promotes clearness; to associate it with other things, however, promotes understanding. To see the fact as it is,—to isolate it and to see all around it,—is to conquer and to possess it as one's own. To put it into due relations with other facts is to use it as a tool for getting, or for understanding, other facts.

How we see facts, how we correlate them, how we form general notions, how mind grows: these and many allied questions belong to the science of mind, which is an essential study constantly to be kept fresh by renewed pursuit,—a study not only for teachers but also for all others who are engaged in any way in social direction or in social control. But intimate psychology is not the theme of this book, which proposes not to dwell upon the mind of the learner but rather to enter upon that other side of the matter of education, the art of the teacher in helping the learner.

For our purposes here, it is sufficient to have in our general view the genetic processes by which motivation *via* attention, interest, association and judgment may eventuate in reason; by which ideation *via* functioning and habit may develop into character; and obedience to persons *via* obedience to rules, laws and customs may become obedience to principles, which is rationality or reasonableness. These are processes in which progress is easier for some than for others but possible, under right guidance, to all originally sound minds.

“Since the development of the natural gifts of man does not take place of itself, all education is an art. Man may be either broken in, trained, and mechanically taught, or he may be really enlightened.”—IMMANUEL KANT, *On Pedagogy*. 1803.



## CHAPTER II

### THE TEACHING PROCESSES FROM THE POINT OF VIEW OF LEARNING

Helping the learner and transmitting knowledge.—Limitations constitute the nature of art.—The general teaching process.—Special teaching processes; inductive recitations; deductive lessons; question-and-answer reviews; study-lessons; drills; laboratory experiments; lectures; seminars; library-work; translation; tests and examinations.

TEACHING has two purposes,—helping the learner for his own sake, and preserving knowledge in the world by imparting it to others. To “teach” is to “show,” to show both “what” and “how.” The teacher shows the learner the way to arrive at facts or principles not yet known by the learner. The teacher follows a method or way that he himself has already travelled.

It may serve as a help to a distinct understanding of what teaching is to notice what, in certain aspects, four other professions are,—medicine, ministry, law, journalism. These professions, like education, deal with the direction, control and correction of persons. One function of medicine is curing the sick, sometimes the minds of the sick, by caring for their bodies as in the case of the insane. One function of the ministry is preaching, which literally is “speaking out,” “telling” the news or the truth or giving advice. One function of the law is

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making others follow a prescribed track. One function of journalism in its largest sense is that of daily publishing facts and opinions in the hope and faith that ideas, not forces, rule the world.

Teaching as the fundamental art of civilization partakes of all these functions. Teachers equip physicians and surgeons, priests and ministers, lawyers and judges, journalists and men of letters, for their work in the world,—as they do nearly all other men. The day is being approached when teachers will equip women with the information requisite for most of their work also. The teacher cares for the sick minds of children and youth; preaches facts in season and often out of season; “lays down the law” in school and college; and tries to advance humanity to the age when wisdom and not fear of material force will be sovereign, and when personal and social conduct will proceed from righteous choice and not from external necessity or from caprice.

The teacher works in these ways to these ends under many limitations. Such limitations, however, characterize every art, and in a sense create the necessity for the art. The glory of the art of the violinist consists partly in the fact that from a small, thin box of wood, as a sounding-board for four taut strings vibrated by a bow with other taut strings, he is able to draw finer music than issues from any other instrument however large and complicated. His triumph is that of skill and of time, of patience and talent over apparently extreme limitations. The artist seems to make his very limitations contribute to his success; as black heightens white, as relief from pain is pleasure, as surrounding poverty accentuates in the wealthy their comfort, as the overcoming of sin makes the victory of righteousness. The



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laws of the theme, the versification, the rhythm and the rhyme of the sonnet are severe: their severity contributes to the joy in a perfect sonnet, such as "Giotto's Tower," by Longfellow.

The limitations of an art in respect to its medium and its tools are its conditions. Among the obvious conditions of the art of teaching are the respective temperaments, ages and sexes of teacher and of learner, who must be brought into harmonious relations; the nature itself of the learning process; the nature of the general teaching process, which must fitly parallel the general learning process; the social opinion of parents, of others in authority or of influence, and of the community in general, which insists upon social indoctrination of the learner in certain matters but prohibits his indoctrination as to others; the place of the teaching, its time, the materials afforded, and the companions, if any, associated as learners.

The art of class-teaching has yet other and closer conditions or restrictions. In consequence, it requires finer skill and larger scholarship to be a teacher of a class of forty or sixty or perhaps a hundred than to be a tutor of an individual learner or of a small group. In the large class, there is a variety of persons, who differ in temperament in wide extremes and often considerably in age. Usually, both sexes are represented; and in public schools, of whatever grade, all social classes and conditions. In cities, the public school attendance includes many different nationalities and races, religions and languages. In an extreme instance, a class of forty-five pupils has been known to include fourteen different nationalities, three different races, five different religions, and nine different languages. In all instances approxi-

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mating such extremes as this, the only safety of the teacher in instruction and in management consists in faithfully observing the general principles of the teaching process; special variations to suit the few Hungarians or the several Italians or the Russian Jews confuse all the others.

The teacher who would intelligently and successfully adapt his or her teaching methods to the class needs first of all to understand the characteristics of pupils of the ages represented in the class. According as the pupils are younger, the element of trying to help the learner for his own sake is more important; as they are older, the element of meaning to keep knowledge alive in the world is more important. In a general way, in elementary schools, the first purpose predominates; in secondary schools, the purposes are nearer at even balance; in the higher education of college and university, the main purpose is to continue science, art, and philosophy in the world.

Some of the errors of teachers proceed from failure to observe this clear and simple principle. To illustrate:—In a colored school in Southern Alabama, for an hour the teacher struggled with her primary class in an effort to teach them the names of the first five books of the Bible. It is well worth while to know the names, of course; but small children are not the proper field for sowing this kind of seed. Again, a faculty of a university reversed its policy, and thereafter it granted no higher professional degrees in one of its graduate schools to industrious but mediocre students, however meritorious in character or in effort. It gave as its reason the principle that it was considering the welfare of the public and the continuance of expert knowledge

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in the high favor of the public rather than the special "good" of its students. In short, it raised its standard and reduced the number of its degree-holders, thereby, of course, discouraging many ambitious men and women, but protecting the public from the deficiencies of the relatively incompetent.

The course of study of a primary school is made as it is mainly to help the children forward, to educate them. The hundreds of electives of the university are offered in order that each of these hundreds of bodies of knowledge may endure in the minds of at least a few men. All the subjects of the primary school are offered in order to help the boys and girls to succeed in life. Very few of the subjects of the university have the personal success of the students in view. Personal ambition characterizes the younger minds, and the smaller minds; social service, art, science, order, patriotism, humanity characterize the older and the larger minds.

The teacher who knows the characteristics of pupils of the ages represented in his or her class knows to what motives to make his or her appeal. And the first principle of the general teaching process is to awaken effort, to stimulate motivation in one of its two forms, intellectual curiosity (or "interest") in the case of a study and bodily activity in the case of an exercise. Arousing the pupil's own endeavor is the beginning of teaching a lesson. Until such endeavor stirs in the soul of the learner, the learning process does not begin.

In most children under twelve or fourteen years, the one generally present motive is to know or to be able to do something commonly considered important in the over-world of adults. This motive is not always present.

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Obviously, in the motor temperaments, it takes the mode of intending to do what the adult can do; in the vital sedentary temperament, it takes the mode of intending to enjoy the affairs of life about as the adult enjoys them; in the speculative sedentary temperament, it takes the form of intending to know what the adult knows.

In these children under twelve or fourteen, in respect to their immediate education, sex is relatively unimportant; and yet, even in childhood, the boy usually cares most for the things that interest men, and the girl for the things of domestic life. Such interests, however, are by no means as marked as they become after these ages. To the small children, the ways of adults, their actions and concerns seem so great and remote and compelling that distinctions between men and women are without interest.

At adolescence, however, especially with girls, the forces of sex-heredity set in with vigor; and thereafter in the normal instances, to know what men know and to do what they can do is a powerful motive with boys; and to know and do what women know and do, with girls. In the secondary adolescence of young manhood and young womanhood,—when they broaden out and grow heavier,—this motive takes on specific forms or follows specific modes according to the individual heroes or heroines or other ideal persons admired by the young man or by the young woman. The young man wishes to be a chemist like So-and-so or a surgeon like Someone-else; the young woman has plans to be a social leader like So-and-so or an author like her favorite Someone-else. The best of them go about with heads full of admiration for statesmen, millionaires, lawyers,

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inventors; or for matrons, actresses, artists; usually living persons of present great reputation.

Though age is indeed a decisive factor, it is by no means determined by mere count of years. Persons of the vital, corpulent temperament are always younger for their years than the muscular motor; the muscular motor than the ideo-motor; and these than the reflective-sedentary.<sup>1</sup> In fact, age is largely a matter of foresight and of anxiety, of care and of thoughtfulness. There are manly boys and childish men,—and temperament has much to do with both kinds. The manly boy has indeed something fine about him; though perhaps he loses childhood and youth by it. The childish man is saved thereby much trouble. But neither type is normal or average, though each is doubtless useful, if not for example always, at least for warning.

The competent teacher who has been reading in the book of human nature looks for age at physique and expression and conduct rather than at the birth certificate; and does not try to anticipate the future of the boy or girl but to take each as he or she is.

With endeavor aroused in the learner, the next stage in the teaching process is to set forth new facts or principles, not too many or too much, nor yet too few or too little, in accordance with the average or a little more than the average of the needs, the powers, and the interests of the learners. To put the principle otherwise, in presenting the need it is better to err on the side of giving too much than of giving too little. To give too little thwarts the best elements in the class,—the bright, the strong, the able. It is, of course, a sign of poor judgment in a teacher to aim at interesting only the

<sup>1</sup> See pages 220, 221.

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uppermost third or fourth or tenth in the class. But when in a general way, he or she thinks of the class as in four ranks of almost equal numbers and aims to interest and hold the second rank, the teacher has done well. In so ranking a class, marks are of but little value; for the reason that they include the quantity of achievement through a period of time, whereas in giving the daily instruction in a subject, the teacher should think mainly of the actual working power of the pupils before him.<sup>1</sup> Another way of properly adjusting the instruction is to think of a normal boy or girl of just slightly better than the median quality in the class, and then setting out to teach all the class in such a way as to meet his needs, and varying only so much as one must in order not entirely to miss any considerable number of the others.

In shaping the instruction at this point to fit the learners, free questions and answers between the teacher and the pupils are usually helpful. These, however, must not proceed to the extent of interrupting the orderly presentation of the facts or principles that are to be taught.

The next stage in the general teaching process is to find out, in the way appropriate to the study or exercise and to the especial matter in hand, whether or not the learner remembers what has just been taught. There are many devices for doing this,—asking for a direct and complete statement in topical form in the case, for example, of an informational lesson, and requiring, in the case of an exercise, that the learner should proceed through it alone.

Here upon the occasion of defective answers by a

<sup>1</sup> See page 211, following.

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considerable number of the class, the teacher has a fine opportunity to get the echo of his or her own work and thereby to check the teaching. It is evidence that the new material was badly presented or perhaps was improperly chosen when many learners failed to understand the lesson, or when some entirely misunderstand it, or when, as sometimes happens, they do not remember it at all.

In such cases, it is sometimes well to abandon, for the present, that "lead" and to proceed in some other direction. We do not build a railroad directly in a bee line through a mountain chain, but we sent it gradually up through tunnels, by bridges across chasms, by spirals along the mountain sides, circuitously and subterraneously, knowing that "the longest way around is often the shortest way home." Direct telling is usually poor teaching, as the test at this stage often shows in the case of young or incompetent teachers. Sometimes, at this stage, all that is necessary is a little more explanation or the presentation of another illustration, and then the lesson clears up.

Beyond this period of the general teaching process is the reviewing, the testing, the drilling, and the examining, from day to day, later until the matter taught has taken its place as a part of the assured mental equipment of the learner, adding either to his skill or to his power to interpret or perhaps to both. What shall be done in the way of repeating, or reviewing in larger relations, of testing to see whether the matter is well and firmly placed and related, and of drilling for final security depends mainly upon the special topic itself. When the affair is a multiplication table, this series of repetitions is prolonged through years. Some-

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times, it is a concern of but a week or a fortnight. There is not much in an elementary school course that deserves being taught at all that does not require at least a week's consideration.

But the discussion of what shall be done in respect to these later stages of the general teaching process brings the investigator clearly to the point of inquiring as to the special teaching processes suitable to the various kinds of studies. This is the other element in the purpose of teaching that must be regarded even in the case of elementary school work and that controls in the case of higher education.

The devices for presenting knowledge to learners, and of bringing learners into the presence of the opportunities to learn knowledge are many, and their appropriateness in respect to the various kinds of knowledge, and to the various stages of the acquirement of the knowledge depends upon some, at times, not easily harmonized elements. In a general way, we may say that teaching is effected successfully in the recitation class-room, in the lecture-hall, in the library through the consultation of books, in the laboratory, and upon excursions outdoors or by visits to museums, only when four elements are properly associated,—the teacher, the learners, the subject, and the device. To illustrate by the negative:—An old experienced teacher with a body of young children is not likely to make much of a success with a science lesson in a laboratory. Again:—A young inexperienced teacher is not likely to make much of a success with a body of mature graduate students in a political science lecture in a university lecture-hall. Again:—Even a skilful teacher, forced to teach physics by the recitation method in a class-room, cannot make much of



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a success. There are some subjects that few women can teach well to older students,—for example, history, physics, higher mathematics, art. There are many subjects that few men can teach well to young learners; indeed, there are but few subjects that they can teach well in the lower schools.

The four places of lesson-giving,—the library with its seminar, the laboratory with its experiment tables, the class-room with its recitations, and the lecture-hall,—afford opportunities for some six different kinds of devices for imparting knowledge. The method that is to be followed controls the devices that are to be used in accordance with it. A “device” is a division of the highway or method, a section of its road. It is, however, important enough to merit some consideration by itself.

A traveller plans a journey from New York to St. Louis; a ticket for the journey by train is one of his devices for getting there. He gives to his family, or employer, or friends some reason for going,—that reason or excuse is a device for getting away and being absent for the period of the journey. An artist conceives a great picture:—the canvas, the paints, the brushes, the studio, the preliminary sketches, the consultations with critical friends, the placing of the canvas now in one light, now in another, the potboilers painted or drawn to get money for living expenses, while the great picture is on the easel, are all devices for getting the picture done well.

These words, “method” and “device,” should be used with care. A recitation is only a device for teaching something; and yet the recitation itself has its own true method and its own devices for carrying its method out. A book is only a device for telling something that the

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author regarded as important enough to write out, and the publisher to issue; but the book has some method in it, good or bad, and the chapters and paragraphs, in form and in content, are the devices for carrying out the method of the book.

When, therefore, one speaks of the "recitation method," one has in mind something entirely distinct from the method of a subject, such as grammar. But when one speaks of "method" in itself, the reference is to the general theory of method and not specifically to any one subject or to recitations or to study or to lessons or to anything else.

Between method and process, the distinction is this,— "method" means "highroad," and "process" means "going forward." The former refers primarily to the track, the latter to the movement along the track. Each implies the other.

Of the teaching processes, for a period of several decades in Europe and America, the recitation has attracted the most attention and has been given the most consideration. The reason therefor is that the recitation is active and dynamic. Directed study is as much a teaching process as is the recitation, and the directed exercise is likewise. We lost interest in the latter as we converted our school into sedentary, bookish enterprises in the conviction perhaps that to understand life is more important than to act in it, and in the knowledge certainly that it costs less to maintain schools for the study of books than for the acquirement of the manual arts and of the technical sciences. The tradition grew up that the teacher is a talker rather than an exemplar and guide. At any rate, in every science and art, the critic, the novice, the narrator and talker about it is

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much cheaper to employ than the skilled performer. It has been absolutely necessary to the development of schools,—especially of public schools upon tax-support, because taxes as such are always hateful,—to keep the costs low. Let us hope that this period of failure to understand the investment-values of the public school will everywhere at some time pass away. It has already passed away in some sections of the country. But let us not expect that the investment-value of education will soon be understood and admitted as true everywhere.

The oral recitation in large classes, following oral instruction, is the cheapest known way of imparting knowledge. It saves even the cost of books.

Of the oral recitation, there is one standard method often applied to every kind of subject. It has what are known as the “five formal steps.” These formal steps constitute what is known as “the method of the recitation.”

The reason for the vogue of this system is that this kind of recitation is indeed admirably calculated for imparting knowledge in a certain kind of subject. Though by no means universally valid and helpful, it is necessary in this kind of subject. The whole situation by which “the method of the recitation,” thus formulated, has come to be applied to every kind of subject, with unfortunate and often absurd results, is but one more illustration of the fatuity with which mankind, finding a thing “good for something,” has assumed that it is good for everything. Medicine has constantly to fight this tendency. When a remedy has been found specific for one disease, it is always in danger of being heralded by the many and used by the unscientific for

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a time as a panacea for all diseases. This tendency is indeed the life of the patent medicine trade. Almost any medicine whether simple or compounded will cure some disease in some person.

The formal recitation is good for all informational studies in the first presentation of new topics. We may classify the subject of the whole educational curriculum from kindergarten through the professional school into studies and exercises, and the studies may again be divided into logical and informational. An informational study is one not yet organized in accordance with an inner logic that so controls the material as to make its presentation in a certain order of topics necessary. An informational study is one, then, that has so far no essential method, no special and characteristic process. It may be a subject in the course of discovering such an inner logic with a typical method for its exposition. In fact, its very presence in the school curriculum usually implies that it is seeking scientific, or artistic, or philosophical form; but the informational study is the one that has not yet found such form. Nature-study, geography, history, spelling, and literature are, in this sense, among the informational studies. Many of the school and college subjects, however, are in one sense studies and in another sense exercises,—as for example, spelling, reading, English and other languages. Or to put the principle in another way,—in some respects, the lessons to be given in some studies should conform to the principles applicable to informational studies, in other respects to the principles applicable to exercises. To illustrate:—We should not teach in the same way both an oral lesson in elocutionary reading and an oral lesson in the development of the content of that reading.

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The first step in the method of the informational recitation is commonly called "the preparation"; the second step, "the presentation"; the third step, "the association"; the fourth step, "the generalization," and the fifth step "the application."

In the first step, the teacher suggests matters that the pupils already know, arouses in some way of appeal or reference to fundamental concerns their active interest and attention, reviews a recent theme, or otherwise tries to get the children or youth into the atmosphere of the subject. This "preparation" may be a brief or a long matter, easy and quiet or hard and noisy. It is quite useless to try to teach the class until they are all in the mood of active attention. Their curiosity must be stimulated else they will not try to learn. The question as to how brief or how energetic this preparation is to be depends partly upon the kind of class that the teacher has. Good classes are usually attentive. In some poor classes, the effort to get the active attention of all is certain to fail: to the extent of its failure, this step in the lesson is a failure.

This step is so important that two thousand years ago, Cicero, the Roman orator, dwelt upon it at length as a test of the skill of the man before the forum in addressing his audience. Indeed, our recitation theory is little more than an expansion of his plan for the oration.<sup>1</sup>

It is the step in which the known is brought before the consciousness of the learner to help him hook upon it the new unknown that is to come.

Illustration:—TOPIC for the proposed lesson, *The*

<sup>1</sup> *On the Orator*, § xxii, "before we enter upon the main subject, the minds of the audience should be conciliated by an exordium."

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*Battle of Gettysburg.* Preparation: Some other battle that the children already have studied. Earlier movements of the armies upon each side that the pupils already know. Hills and low mountains that they have seen or at least have read about hitherto. Great crowds or other assemblages such as the learners have either seen in reality or in pictures. Gunpowder explosions. Noise. Bravery and heroism.—Not all these points are necessary. It is sufficient to say enough, or to ask the learners to tell enough, to make them anxious to know more.

Sometimes to this step is added a so-called “sub-step” known as “the aim.” Here the teacher tells briefly what the aim or purpose of the lesson is.

The second step is the presentation of the new material. At this point often arises the error of the teacher who assigns the lesson in the text-book to be studied before giving an oral lesson or holding a recitation upon it. To expect a class whose members have already read all the text-book account to listen to a presentation of the same material upon the plea that it is new and therefore answers their curiosity is common enough, but it is in direct opposition to the very theory of this kind of recitation.

The reason why this error is so frequently made by teachers trained in normal schools is because their training is usually designed to fit them for the lower grades where few books are used and they are not warned that the very use of books to study a new body of material makes this kind of recitation inappropriate. In elementary grades, books are for study-reviews.

But assuming that the material is really new, the business of the teacher is to tell it with a due emphasis

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of the salient points and with such questions at times to members of the class as assure him that most of them are actually following the narrative or exposition. This may commonly be made the longest single section of the entire recitation or lesson.

Presentation:—Numbers of men on each side, with names of some of the leaders and heroes. The topographical facts. The first day's combat. The second day's. The third day's. Pickett's charge. The defeat. The results on the battle-field. The results in national history. The disappointment of the Confederates. The elation of the Federals.

Gettysburg, though not the greatest, one of the critical battles of the war. Meaning of a crisis, and explanation of the situation.

In the third stage of the recitation, the teacher makes comparisons of the subject matter of the lesson with other similar or dissimilar matters, and suggests a few pertinent truths drawn from the facts. This step emphasizes the lesson by pointing out its meaning. Usually, there is but little delay at this point.

The fourth step offers the generalization. It is often but a summary in a sentence or so of the previous steps. In some accounts of this method of the recitation, it is treated as part of the third step.

Generalization:—A great battle in a great war tests the strength of the civilization and population upon each side. The Union army won because it had the better position and more soldiers, and because the Confederates erred, therefore, in attacking them at this time and place. With no greater natural resources, the free-labor States had so outpointed the slave-labor States in wealth and in population as to

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be able to put and support more soldiers in the field, etc., etc.

The last step is or is not important or long in the making, according to the matter in hand. In it, the teacher applies the conclusion to practical matters. This application must seem to issue from the very process and to be not only logical but moral and obvious.

Application:—Sometimes, the crisis comes early and sometimes late in a series of events. Sometimes, it constitutes a climax after which one set of forces collapses. Sometimes, as in this case of Gettysburg, even after the crisis, the overthrow is long in coming, though scarcely avoidable. Indeed, no feature of the Civil War is more astonishing than the long and valiant struggle of the Confederacy after Vicksburg and Gettysburg, when the handwriting of fate appeared so plainly upon the wall.

In this illustrative review of what might be done by the formal method in a treatment of this event, many points have been omitted. The teacher might have compared Gettysburg for likeness and unlikeness with Yorktown or Saratoga as a critical affair in a war.

It is usually difficult to carry out the five steps of the lesson as thus outlined in the limited space of time required by the crowding of so many subjects into the elementary school curriculum and by the fatigue limits of children. Such a lesson should not be over thirty-five minutes in length, and twenty-five is a wiser term, even in the last years of the elementary school.

It is evident that such a treatment as that just presented is an illustration of the inductive method of



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teaching. It presents facts and then draws conclusions.<sup>1</sup>

The opposite or deductive method has its formal steps likewise. But curiously enough, there are no books and but few essays or articles that deal with it, though historically it is much the older method and comparatively far more often employed.

The first of the formal steps of the deductive recitation or lesson is the presentation of the new problem to be solved, the question to be answered, or the example to be known. This direct offering of new matter is assumed to arouse curiosity and effort, without any preliminary stirring up of motivation by formal appeal to old interests.

The second stage is not the presentation of some new facts but the offering of some general truth that must be learned as a truth and is then available for use as a rule or law. Upon the suggestion that this is the fourth or generalization stage of the other kind of lesson, it becomes apparent that this deductive lesson is applicable not to informational but to logical studies. In the deductive lesson, one jumps upon the shoulders of one's ancestors and sees from that higher viewpoint.

Illustration:—SIX PER CENT. METHOD IN ARITHMETIC to compute all varieties of interest. Presentation: A loans B \$100 for 60 days at six per cent. How much is due when the loan matures?

Statement of the rule. Interest as a form of percentage. What six per cent. means per day on the 365-day basis. Its meaning on a 360-day basis. The

<sup>1</sup>For illustrations of the various kinds of lessons, see Appendix V, pages 312-321.

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slight advantage to bankers. The table taught,—for year, for 60 days, for 6 days. Computing four per cent., seven per cent., etc.

The third stage is the solution of the problem. The fourth stage is drill upon many problems.

To put the matter more simply. The deductive lesson has four steps,—the case in hand, the generalization, the application, and drill. Though apparently much easier because offering less steps than the inductive lesson, it is in reality, in most instances, a more difficult method when adequately and successfully followed. To teach the rule, or the generalization, as a truth of authority, requires an appeal to the memory and to the understanding at once, without the aid of the details that lend interest to the inductive lesson.

But it is quite obvious that were all subjects in the curriculum to be taught with literal compliance to the inductive principle, time would not suffice to cover the ground. We must of necessity give many deductive lessons. Even in the informational subjects, some topics must be studied deductively. Such a document as the United States Constitution does not properly come up for any inductive study until the later years of the higher education. On the other hand, in some of the deductive subjects of a logical nature, there are topics that may be taken up inductively as lesson material. Observational geometry is an effort to convert the logical study of geometry into an inductive school subject; and it appears certain that for original problems even in geometry, and for other problems also, the inductive is the true method.

A third kind of recitation is the so-called “question-and-answer” or “heuristic” recitation.

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This kind of recitation assumes that before it there has been either a series of other kinds of recitations by which the pupils have accumulated information, or else that there has been a study lesson by way of preparation for the quizzing.<sup>1</sup>

The "question-and-answer" recitation is sometimes called "Socratic" from the fact that the ancient philosopher Socrates employed questions so freely in his efforts to convince the Athenians from their own mouths that they did not know much. A simple, straightforward, methodical series of questions and answers serves well for reviews and oral tests. Among the principles governing the heuristic lesson and constituting its processes are the following,—*viz.*:

1. Open into the subject with questions that have the goal in view. To this affirmative principle, there is a negative correlate. Do not begin with questions upon topics well forward or otherwise within the subject. In other words, start with causes; or with the topics earliest in time; or with those nearest home. ("Home" is an atmosphere due to familiarity and interest.) And yet do not begin with narrow questions but with those that have direction and point so as to help the pupil to get his bearings.

2. Proceed with questions that apportion the time duly as between the topics, emphasizing those of importance, minimizing the relatively unimportant. This principle also has its negative correlates. We should not delay too long upon any points. We should skip no essential points.

3. Let the questions follow in logical order. This may be

<sup>1</sup> The heuristic method is employed not only in elementary recitations for reviewing study lessons but also in higher education for the discovery of new truth by the free interplay of the minds of teacher and students. The two uses should not be confused.

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the order of sequence in time or of nearness in space or of cause-and-effect or of any other normal association of ideas. The correlate of this is:—Do not digress from the main line of the review.

4. Move forward. Do not circle about any topic. Do not revive a topic already passed—unless to use it in another important connection. (Failure to observe this principle has ruined many books, many sermons, many recitations.)

5. Approach the concluding topics in such a manner as to prepare for the ending. The negative correlate of this principle is:—Avoid an anti-climax. The last questions may be upon the plateau of the conclusion, but they should not be so high up that the conclusion itself is a descent. The questions toward the end should develop that end properly.

6. End with questions that develop the conclusion fully; and stop. There is much in knowing when and how to stop so as to make the final impression clear and strong.

7. Throughout this recitation assume that familiar points, once properly set forth, do not need longer consideration lest the pupils be wearied. This applies even to the beginning items, to critical ones in the course of the discussion, and to the conclusion itself.

The order of progress in this question-and-answer recitation may be set forth in the simile of a railroad trip—*viz.*:

1. Direction—start to finish.
2. Rate—due apportionment of time.
3. Stations—the essential topics.
4. Sections—the relations (logic) of the topics.
5. Regulation of the speed.
6. Approach to the destination.
7. Arrival.

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In all recitations involving questions and answers passing between teacher and class, there are some principles that eliminate certain kinds of questions.

These principles are usually to be observed—*viz.*:

The question should not suggest or indicate the answer.

It should not be a question adequately answered by either a "Yes" or a "No."

It should not be such a question as may be answered by a single word.

It should not be long or involved.

It should not be obscure in its meaning.

It should not call for a cut-and-dried answer.

It should not permit a vague answer.

It should not be ambiguous or permit an ambiguous answer.

Of the study lesson, much has recently been written, and there is much yet to write. The study lesson should conform to the learning process. It affords materials for the learner to take on as load in the process along the method. Books have so long been the common reliance of scholars and are used ever more and more, and lower and lower down in the grades that how to direct the study of books is an essential part of the teacher's preparation even for primary work. The assistance that the book gives to the pupil with mental gifts is so great as to enable him to short-circuit the elementary school curriculum. It does not, however, follow that he should therefore be turned over wholly to books. It may be that his mental gifts are likely to impoverish his power to do, and to enfeeble his zest in life. "Mental gifts" may indeed be only a euphemistic blind for a sedentary disposition.

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Most important in the study lesson is that the book or text to be studied should be accurate in content, of the right tone in spirit, and of a good style. For young children to study notes taken down by themselves from the teacher's dictation or copied from the blackboard is almost to insure their learning words incorrectly spelled, sentences incorrectly formed, ideas inadequately presented, and a content more or less erroneous.

Assuming, however, that the material in the book to be studied is good, next in importance is the approach by the learner to it. This approach is to be directed by the teacher, who should give such a lesson upon the subject taught in the book as the special topic under treatment requires. Simply telling the learners what the text contains is not enough.

The reasons for this necessity of adequately preparing the attention of the learner for his study of a text are two. One is inherent in the constitution of our nature. For the purposes of learning, it is needful to remember that men are usually ear-minded and not eye-minded. Even now, after some centuries of literacy, nearly all persons recall much more fully and accurately what they hear than what they read. Words mean far more to most persons when spoken than when written or printed. If this were not so, the customs of all the social institutions would long since have been revolutionized. Preaching would be at an end, teaching, canvassing by sales agents, conferences between men, and oratory; and the use of the telephone would never have grown beyond that of the telegraph.

Reading the printed or written word doubtless has some advantages over speech and hearing. Oral speech is like a moving thread or a flowing stream. We must

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get it when it passes, or we never know it. Written language is like a plane fixed in space. When we wish to do so, we can review it. Written language is like the past, always adamant. Oral speech is like a flower that fades.

We may go over and over the printed page until we master it. The page is there to stay as long as its paper and ink endure, and as men remember its kind of symbols for thought. Even the recollection of speech is tricky, and takes on strange varieties of words and of meanings.

By both hearing a matter and reading of it, one cross-sections it, and thereby gets it in the solid of three dimensions. But the hearing of it from the lips of a competent guide is the true introduction.

Therefore, prior to setting the learners to the study of the printed page, the teacher should outline the topic and explain where the important points are. This should be done the more thoroughly according as the subject is new or difficult or long, and as the pupils are young and ignorant of it and the allied facts and principles.

The learners do not know how to study. If they did, they would scarcely need to go to school. No business of a school is more important than this of teaching the young and the ignorant how to study. In one aspect, a man may be considered educated when, and not before, he knows how to study by himself, keeping the main trail,—following, despite temptations and would-be insistent day-dreams, some approved method.

Learning how to study means inhibiting the vagaries of attention and reflection,—in popular language, shutting out wayward thoughts,—and keeping resolutely in

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consideration the topic intended. To do this is a triumph of will over the naturally dissipated interests and tendencies of the mind. Some individuals can never learn how to study, some learn only with difficulty, and through the course of many years, some learn by the time they are ten or twelve years old, and some are natural students, born such by temperament.

After telling the students what to study, the work of the teacher is not over. It is necessary to follow them one by one and to see that they are actually studying. To "study" is literally to "agonize" over, to work upon, to be anxious about.

To say that there is too much or to say that there is too little study in American schools generally is a rather unsafe generalization. Perhaps it is true that there is rather too much home study required in our elementary and high schools; but that there is too little time arranged, in the school programs, when at school, for the learners to study under direction, is perhaps a safe generalization. The truth seems to be that there is altogether too much undirected study, and somewhat too much of misdirected study. Here the failures are of individual teachers in respect to their own subjects and grades and in respect to their individual pupils. Side by side with the teacher who does guide his or her pupils in their study lessons will be another who does not.

For the study of the printed page, these principles should be inculcated. Some of them are too difficult for the smaller pupils of elementary schools; but all of them are important in the practice of the teachers of all schools in their own study and are available for inculcation in the higher grades of education, *viz.:*



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1. Read the passage and get its general meaning.
2. Read it again and get its exact meaning.
3. Analyze it in detail.
4. Go over all doubtful words and phrases (with the dictionary, usually).
5. Add from one's own experience, or from *a priori* opinion, whatever seems to illuminate the meaning.
6. Read the context before and after the passage. This gives orientation.
7. Get the argument or thought as apart from the words and sentences. "Think it over."
8. Read between the lines. Perhaps or probably, there was much in the author's mind that he had neither time nor space to say. He expected his readers to supply this.
9. Now attack or defend the positions asserted in the passage.
10. When the passage is good enough, learn it for accurate recall. Now, and not before, verbatim memorizing may be permitted.
11. Locate the subject in one's own body of principles and form convictions about it.
12. Express the thought in one's own language and with one's own illustrations.

In this connection, it is highly profitable to note that some studies require much more class-exposition and much less desk study than do others, and vice versa. Any practice of allowing equal amounts of time for desk study (or for home study) and for recitation in each subject each day is unwarranted by educational theory. In general, the studies requiring deductive lessons require also more desk and home study than do the inductive studies, but there are exceptions to this general proposition. The reason is that the logical subject with

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its deductive lesson represents, in condensed and often abstract form, the knowledge and experience or wisdom of many minds not verified as yet in the personal experience or coming within the personal knowledge of the learner, while the inductive lesson is an attempt to bring facts and truths within the immediate experience of the learner, or in some fields to draw these facts and truths, as it were, out from the experience of the learner.

The subjects of school and college are classified roughly as studies and as exercises. For the logical studies, the deductive lesson with its four steps constitutes the true teaching method, while for the informational study the inductive lesson with its "five formal steps" is the desideratum.<sup>1</sup> The question-and-answer recitation serves well for the reviews in all studies, and the study lesson "in the book" is calculated to reënforce all kinds of oral lessons. We have, therefore, remaining for consideration the best kinds of lessons for the exercises of the curriculum.

The subjects commonly classed as "exercises" may be subdivided into those which are primarily psychical and those which are primarily physical, for all are physiopsychical (or psychophysical).<sup>2</sup> In the exercises, the parallelism of soul and body constantly forces itself upon the attention of the observer. What this concurrent stream of psychic life and of physical is, no man yet knows; and there is no slightest indication that the race is getting any nearer the truth for all its searchings as the years and the generations pass by.

<sup>1</sup> The deductive lesson is analytic in its nature; the inductive is synthetic. Studies and exercises are sometimes classified as subjective and objective. All school subjects, however, are mainly objective.

<sup>2</sup> See page 45, above.

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In these exercises, there are no recitations. A "recitation" is a "calling back." A teacher may properly be said to "hear" a recitation. But in the exercise there is no calling back. The exercise is an individual performance of the learner, more or less in accordance with the instructions of his teacher, but necessarily bearing the sole stamp of his own individual powers and character. In the recitation, the teacher is the interpreter of certain subject-matter. In the exercise, the pupil is the interpreter.

There may indeed be exercises in connection with even the most closely reasoned of the logical studies, and many are required in the case of inductive informational studies. But in the subjects that are classed as exercises all the progress consists in doing.

The psychical exercises have one lesson method, and the physical exercises another that is somewhat different. In this respect, however, they differ less than do logical and informational studies.

The point may be best seen in the concrete, which is a quality that characterizes all exercises. Music and drawing are primarily psychical exercises. Before one can draw, one must have some vision of things not yet represented. Before one can make any kind of music, the tune must be ringing in the soul. And yet, both picture and song, in order to be known at all to others, must be realized in a thing visible or audible. Manual training and physical culture are mainly affairs of the physical organism, in which the psychical element is of less importance than in the cases of music and painting.

A true lesson in music is an exemplification by a real musician of what the learner is to emulate, together with an explanation of the process in detail. To give

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a good music lesson is to do the exercise oneself well for the learner. There is no way to tell about it. He must hear the music. Of course, merely giving the exercise well is not enough. Then follow the explanation of the exercise and the trial of the learner in it.

In teaching a study, the person who knows the topic may tell something to-day and more to-morrow and so gradually build up a body of knowledge in the mind of the learner. The first account is but a skeleton of the final knowledge. It may not be even that; it may be but a little anteroom in the house when it is finished; it may be even less,—nothing but scaffolding to come down when the structure is reared.

But in the drawing or music or other psychical exercise, what is done is permanent. Learning false notes or false harmonies at the beginning is a very serious matter. They are, in a sense, built into the learner's organism. It is undesirable to have a teacher who does not teach the facts of history correctly, but the errors are remediable later. It is necessary that the teacher of a psychical exercise teach correctly, else the subject is wholly wrong. The book serves partly to rectify the errors of a history lesson by the study review, but there is no way to rectify the error of the teacher who trains the pupils to a false time motion in music or to a false perspective in drawing.

The steps in a lesson in a psychical exercise are an exemplification by the teacher of the new thing to be learned, its explanation in detail, its trial by the class, the corrections by the teacher, new trials, corrections, *ad infinitum* until by drill the learners are perfect. The subject is then incorporated in the makeup of the

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learner. It becomes to him power and skill for doing the next thing, a part of himself.

When ideas are coalæsced in the mind and become part of the mind, the power to learn the next thing is increased. So the exercise well learned adds to the being of the exerciser. Each new song comes a little easier. Each new theme for painting well worked out makes the next simpler. After a while, the songster comes to know music, and the painter to be a picture-maker, an artist in form and color.

But the teaching of an exercise that is primarily physical is easier, and the learning of it also. The model lesson must still be given, but the explanation may often be entirely omitted and direct imitation required. As soon as the exercise is known, it may be called for by order and commands. We cannot order a child to make a painting on demand, but we may order him to go through a calisthenic drill on command. In fact, implicit obedience and exact performance are among the most important educational ends to be served by the teaching of physical exercises. Thereby, the body is trained promptly to obey the will.

We have now reached the point of considering the method of the laboratory, of the lecture, of the seminar and of the library. In the laboratory, one pursues scientific truth by the process of observation, experiment, trial-and-error, generalization, verification and conclusion. This is the inductive method in its pure and simple form, even simpler than that of the inductive recitation. A laboratory lesson is indeed an inductive recitation in which every pupil is instructed by himself, and for the time being the class does not exist.

The lecture is anything whatever that suits the special

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needs, at the time, of the lecturer as a teacher or teller of the facts and principles that he wishes to expound. It may be pure narrative, such as belongs in the presentation stage of an inductive lesson. It may be a body of applications. It may be an exposition of some general truth as in the second stage of the deductive lesson. The lecture as a teaching device makes an excellent summary for reviews in some kinds of subjects in the secondary school, and is the typical mode for the university. But the lecture itself has no typical mode. The oration is supposed to have its standard form from introduction to peroration, but not so with the lecture, whose content and special purpose entirely control its form. It comes under the head not of pedagogy, nor of oratory, but of literature in its broadest sense.

The lecture should have some inner logic due to its purpose and subject and should be properly proportioned for the occasion. It should aim to create in the listener the same mood as that of the lecturer. The lecture is a poor instrument whereby to convey facts. The printed page is far better. The recitation is best of all. A good lecture is an exposition of principles and a work of art.<sup>1</sup>

The seminar likewise, though a practical teaching process, in the higher stages of education, is essentially a form of conversation, or of conference, and knows no other law than that of its specific purpose and subject.

Sometimes, the teacher of teachers indulges in addresses or lectures, and sometimes he organizes seminars, for the special study, by proficient members, of some important subject more or less closely connected with education. It is perhaps permissible, therefore, to

<sup>1</sup> Tolstoi, *What Is Art?* p. 74. (Johnston, translator.)

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mention a few features of good lecturing and of well sustained seminar work.

A lecture should seldom overrun the fatigue limits of average adults, which are not over an hour except in times of high emotional excitement. It should deal with but a few main points and those in logical and, if possible, climacteric sequence. It should have some variety at least of illustration in order to avoid monotony. It should be carefully prepared to the least detail, even though delivered without manuscript. Not even a school superintendent, though burdened with both great and petty responsibilities and duties, or a principal, has any right to appear before his teachers and improvise.

The lecture should have one clear conclusion.

A seminar should consist of but a small number of persons who are really interested in the subject,—not over a dozen and better but half as many. It should meet regularly and at least once a week under conditions of time and place that guarantee no interruptions. It requires both a leader who is a scholar and also workers who can follow his method and utilize his suggestions. Attendants who come simply to listen should be barred: they may become censorious critics. These are suggestions relating only to externals; but for want of heeding them, most seminars in and out of universities are relatively disappointing.

A highly developed and notably specialized form of lesson is that known as translation. Its process involves the following steps—*viz.*:

1. Study of the passage sentence by sentence, phrase by phrase for grammar and meaning of words.
2. Literal translation into English.

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3. Smooth translation into idiomatic English.
4. Giving the translation in class recitation.
5. Construing and parsing.
6. Exposition of the author's meaning in content and in context.

In method, this lesson combines features of the study lesson with an oral report of it and also features of the inductive lesson and even of the scientific laboratory lesson. In practice, because of faulty private study, it generally becomes an oral study lesson in which the pupils are assisted by the teacher.

Last is the teaching process that is incidental to library work. Here again the method follows closely that of the study lesson. It is necessary to add but one item—the teacher who directs learners to any kind of library should himself or herself actually know reasonably well the material that he or she expects the learner to study. Otherwise, the learner is likely to follow false leads and to waste time as well as to risk serious discouragement, or absolute misinformation. A great library is like a great city full of pitfalls as well as of palaces. Even a small library is dangerous to ill-informed wayfarers.

The place of tests and examinations in school life can be justified only in so far as they are educational instruments; and they should be strictly limited in their scope and frequency to this use as educational instruments.

A test samples one's knowledge or skill.

An examination is supposed to exhaust it.

The test finds out what one knows or can do.

The examination is supposed to find out what one



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does not know or cannot do: it reaches to the limits of one's knowledge or skill.

Though tests are usually shorter than examinations, the distinction between them does not rest upon this fact but upon the difference in their aims.

The test displays whether or not a pupil has been well taught; the examination should display what he needs to be taught next. "Test" means "trial"; "examination" means "point from."

There are many familiar objections on physiological and psychological grounds to giving tests and examinations in elementary schools. Pupils fear them. The nervous children do badly in them. Failure brings discouragement and sometimes ill-health; success often develops undue ambition and unfortunate vanity. It is said that in life the daily work rather than the crisis counts.

And yet tests and examinations continue, despite these and many other objections. Like marks, they appear to be necessary, though evil. What then should educators do?

First: We should discover the true uses of tests and examinations. These are (1) focalizing knowledge or skill upon centers; (2) giving the teachers correction-points for their guidance in future instruction; (3) setting up goals of attainment for the learners; (4) eliminating the less necessary and thereby emphasizing the essentials.

Second: We should discard the false uses of tests and of examinations. Among these are (1) frightening or threatening dullards; (2) stimulating the ambitious; (3) glossing over deficiencies in daily work by cramming for the written tests; (4) setting up fictitious goals for ourselves.

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Third: We should postpone examinations as late in the school life of pupils as is reasonable. To be specific:—(1) Shall we examine for high school admission? (2) How often thereafter? My own opinion is regarding the first—In good school systems, no. In poor ones, yes. As to the second, my opinion is,—In some studies, twice a year. In others, not at all. The entire matter, however, is one that displays education at the limits of exact knowledge based upon scientific investigation and consideration.

Fourth: In our elementary schools we should give more tests in some subjects than in others; more in higher grades than in lower.

Fifth: In length, neither tests nor examinations should transgress the fatigue-limits set by Nature in these offspring of human nature.<sup>1</sup>

Sixth: Every test and examination should be “fair,”—*i. e.*, should inquire into only those topics which have been thoroughly and completely canvassed in the daily work whether that be in laboratory or in library, in class-room or in study-hall; and the desired answers should be only such as were plainly indicated in the advance lessons and exercises. The negative correlate of this is that the test or examination is no place for demanding that the pupil draw some advanced conclusion, see some new point, push forward some hitherto unconsidered argument. The test or examination may indeed require reasoning but not reasoning upon new grounds. It is fear of originals in their strict sense, new problems involving new premises, processes and materials that in anticipation breaks down our nervous youth. In psychological terms, the test or examination

<sup>1</sup> See pages 122, 123.

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may properly call upon memory, judgment, standard reasoning but not upon imagination or initiative. The only exceptions are examinations for the highest academic and professional degrees, by which society needs to be protected from such as do not have all their resources, native and acquired, at prompt command.

Seventh: Preparation for tests and examinations is no fit incentive for the daily work. They must be kept out of mind.

Eighth: Tests should be formal reviews, whether written or oral, and should conform to the principles of the oral question-and-answer or "heuristic" lesson.<sup>1</sup>

Tests are mile-posts in the process through a subject. Examinations determine whether or not the wayfarer has reached the destination. It follows, therefore, that only a pedant would voluntarily test and examine youth in the self-testing and self-examining subjects, in which in truth every advance lesson tells any competent observer all about the youth's knowledge of and skill in the subject to that point.<sup>2</sup> To be specific: There are no grounds for testing or examining English composition, penmanship, reading, music, or drawing.

Some subjects require no tests, but do permit examinations, because in them every lesson is a test,—as arithmetic and grammar, laboratory sciences and semi-

<sup>1</sup> See page 46, above.

<sup>2</sup> I do not mean to raise here any question about entrance examinations to higher institutions of learning, *i. e.*, passing from the jurisdiction of one school to that of another not within the system. I have convictions on this point; but they do not concern a text that deals with class teaching. I believe heartily in the plan of accrediting schools by official visits to and examination of the schools as such (not of their product) and of accepting their certificates for the graduates.

# MAIN FEATURES OF LESSONS, EXERCISES, AND RECITATIONS

## CLASS TEACHING AND MANAGEMENT

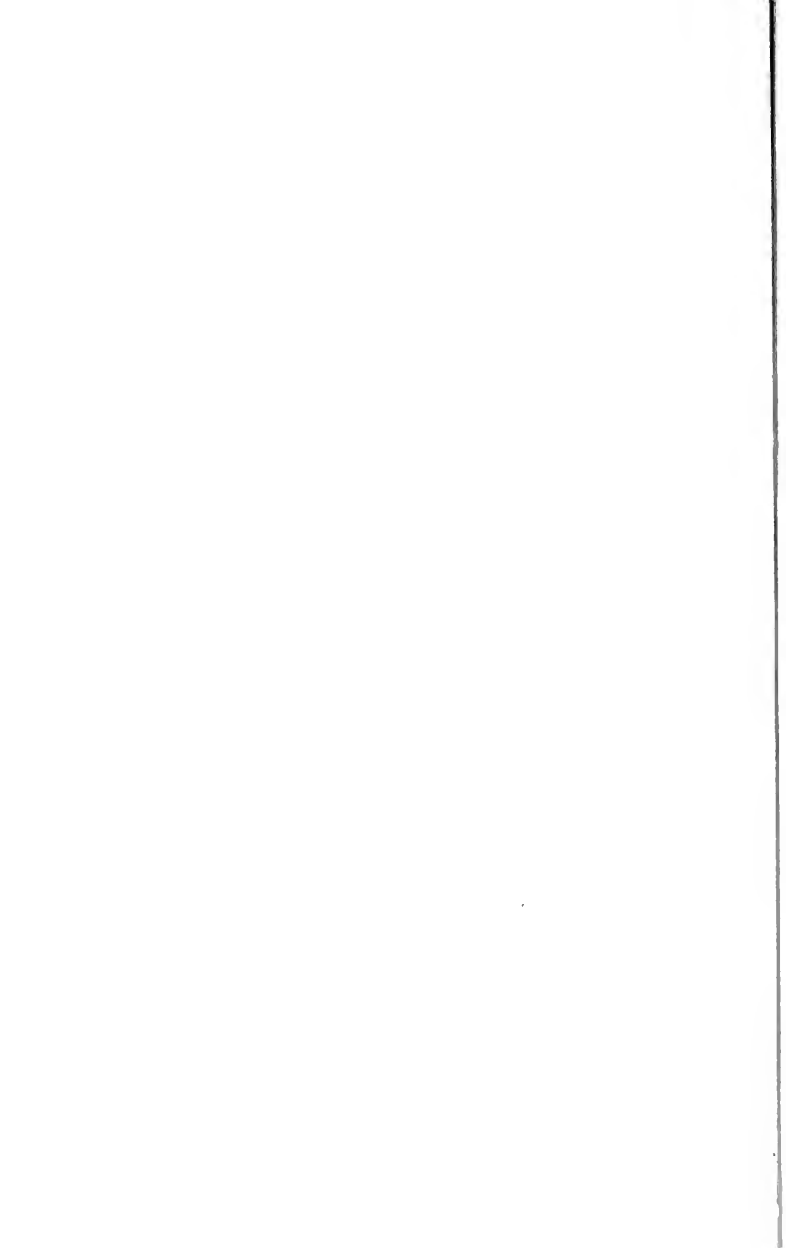
INFORMATIONAL STUDIES  Inductive Recitation	LOGICAL STUDIES  Deductive Recitation	EXERCISES  Psychological and Physiological
<ol style="list-style-type: none"> <li>1. Preparation (sub-step, aim)</li> <li>2. Presentation</li> <li>3. Association</li> <li>4. Generalization</li> <li>5. Application</li> </ol>	<ol style="list-style-type: none"> <li>1. Presentation of problem (or example)</li> <li>2. Rule for solution (or answer)</li> <li>3. Solution (application of rule)</li> <li>4. Drill upon problems (under the rule)</li> </ol>	<ol style="list-style-type: none"> <li>1. Exemplification by the teacher</li> <li>2. Explanation by the teacher</li> <li>3. Imitation by some pupils</li> <li>4. Reviewed exemplification and explanation</li> <li>5. Repetition by more pupils</li> <li>6. <i>Serialism</i> until all or nearly all can perform the exercise</li> <li>7. Drill until the idea functions as habit or skill</li> </ol>
REVIEW LESSONS  Heuristic (Question-and-Answer Recitation)	SCIENTIFIC STUDIES  Laboratory Lessons	STUDY LESSONS
<ol style="list-style-type: none"> <li>1. Direction</li> <li>2. Rate</li> <li>3. Route</li> <li>4. Stations</li> <li>5. Sections</li> <li>6. Approach</li> <li>7. Arrival</li> </ol>	<ol style="list-style-type: none"> <li>1. Observation</li> <li>2. Verification by repetition</li> <li>3. Systematic experimentation to discover likeness and contrast</li> <li>4. Hypothesis</li> <li>5. Trial of hypothesis by experimentation</li> <li>6. Acceptance or rejection of hypothesis—Proof makes</li> <li>7. Theory</li> </ol>	<ol style="list-style-type: none"> <li>1. Reading passage</li> <li>2. Examining it in detail</li> <li>3. Reading context</li> <li>4. Reading between the lines</li> <li>5. Agreement or disagreement</li> <li>6. Learning the passage</li> <li>7. Expressing thought in one's own language with one's own illustrations</li> </ol>

## THE TEACHING PROCESSES

nar studies. Others require only tests and no examination,—as physical culture, carpentry, cookery. And still others permit both tests and examinations,—geography, history, literature (historical), translation of ancient and foreign literature.<sup>1</sup> Subjects taught by lecture methods of necessity require examinations. But what the value of either tests or examinations may be as educational instruments in the case of the subjects taught by laboratory methods, it is difficult to see. In these subjects, indeed, it would appear that the examinations given to the pupils are rather intended as examinations of the instructors.

In conclusion, one who duly considers the situation is not unlikely to come to the opinion that in graded schools, the tests and examinations given by the higher authorities to the pupils are essentially devices designed to test the teachers and to help grade the classes and so to preserve the uniformity of work in the different schools. Seldom, I was about to say never, should these tests and examinations be entered as part of the record of individual students. The teacher's own tests and such as have been made and given by higher authorities with the teacher's advice and consent may be entered as part of the record.

<sup>1</sup> There is no call for examinations or even for tests in the process of teaching French, German, Spanish, Italian, or other foreign language conversation.



“The common school, improved and energized as it can easily be, may become the most effective and benignant of all the forces of civilization.”—HORACE MANN, *Annual Report*, State Board of Education, Massachusetts. 1848.

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## CHAPTER III

### DEPARTMENT TEACHING—GRADE TEACHING—DISTRICT SCHOOL TEACHING

Reasons for the several kinds and grades of schools.—The lower limits of department teaching and the upper limits of grade teaching.—The several principles of department teaching.—The principles of grade teaching.—The causes of the rural school consolidation movement.—Grading the district school that has but one teacher.—Advantages of such a school.—In all kinds of schools, written work, reviews, examinations.—Change and progress.

A SUBJECT is something put under; in the case of teaching, the subject is the material used as the means of teaching; in the case of education, the subject is the person who is being educated. There are, then, two subjects in the school, the things taught, and the persons educated.

The lower the grade of the teaching, the more important in the mind of the teacher should be the person who is the subject, while the higher the grade of the teaching the more important must be the thing that is taught. But always the teacher has two subjects, the study or exercise and the pupil.

In elementary schools, the main interest should be in the pupils, while in the university graduate and other professional schools the main interest should be in the subjects of the curriculum. The small child does well to cover a page of new material a day. The university

## CLASS TEACHING AND MANAGEMENT

student may master a serious book a day, or the equivalent. The small child can master his page only with the help of a skilful teacher at every letter. The university student is assigned reading passages without comment. At five years of age, one does not cover per day one-thousandth of the material covered at twenty-one years of age.

Such, at any rate, is the superficial appearance of the matter. Upon closer examination, it will be discovered that the process of combining sounds with signs with ideas and of then transferring the ideas back to signs, to sounds,—that is, the organic-psychic process of hearing, seeing, interpreting, writing and speaking,—this five-fold complex of unrelated simple processes, this rationalizing of man through languages, is precisely the most difficult of all the things man ever learns, and constitutes what is essentially a miracle. The more the thing is studied, the more marvellous it is seen to be. Nothing that the university man learns is as hard to learn as this elementary matter of words.

In all its varieties of forms and modes, reading is a subject so difficult to master that it practically never is mastered without much teaching through many years. In this large sense, nearly all the time and energy of both teacher and pupil in the elementary school, and much of the time in the secondary school, is spent upon speech, oral and written,—upon words, their meaning and use. Not until the later years of the secondary school do ideas as such become of the greater importance.

This fact governs the nature of the teaching in the different grades of school. In the lowest grades, since the content of what is taught is relatively unimportant

## DEPARTMENT TEACHING

ant, the teacher teaches all subjects. In the middle schools, he teaches several subjects. In the college, he teaches in a department. In the university, one distinct specialty is all that the teacher can adequately present.

There are clearly to be discriminated four several kinds or modes of teaching,—district school teaching, grade teaching, department teaching, special teaching,—and there is one other educational line, research work directed by a specialist, which must be understood as coming within the educational purview. Each has its own methods. Of these five educational gradations of the teaching business, the first three are within the field of the present subject. But class instruction and management, as usually understood, does not contemplate the relations of a specialist with his students, however large be their number, and is no part of the problem of the director of research work.

These four several kinds or modes of teaching involve adaptations of the various kinds of recitations and lessons discussed in the preceding chapter. These adaptations are required by the conditions of organization in the several kinds of schools and by the kinds of learners in attendance. For the reason already stated, the first or highest kind of class teaching, that of the specialist in college or university, is so entirely dependent upon the nature of the subject-matter and the special conditions of the institution as to be without the purview of this book. The question as to how to teach a class in the history of English literature of the period of Shakespeare is indeed a question of pedagogy; so is the question as to how best one may present the theory of torts to a law school class. But no treatment

## CLASS TEACHING AND MANAGEMENT

in a general text-book of pedagogy would be sufficiently edifying to warrant its appearance.

The next lower grade of teaching has come to be known as "department teaching." We find this in colleges, in high schools and academies, and occasionally in the upper grades of elementary schools.

A department teacher is one who shares with several other teachers the teaching of several classes and in those classes teaches one or more related groups of subjects.

Illustration:—A high school has ten teachers. One has both French and German, another the mathematics of the higher grades and physics, another the first-year mathematics, etc. There are six periods a day, and each teacher takes five periods a day for teaching. The school may have, therefore, fifty recitation and ten study periods daily under teachers. When the school has four years of courses, this averages twelve classes to a year. Such is department teaching.

Where the teacher meets several different classes daily and shares with several other teachers the instruction in the school, but teaches subjects not allied, as for example, history and algebra, or English and chemistry, there one sees not true department teaching but grade or even district school teaching mixed with department teaching.

As an instructor, the first thing for the true department teacher to do is to determine the method of instruction best adapted to bring the subject-matter before learners of the ages and qualifications in his class within the limits of the inner logic and of the special method of his subject.

## DEPARTMENT TEACHING

Here names are apt to be misleading. "Latin" in the first year is not the same kind of subject in respect to its method as is Latin of the second year. "English" covers many kinds of discipline. German by the inductive method, German by the conversational method, and German by the eclectic method are as different as iron ore, pig iron, and steel. Each contains German.

The second inquiry of the department instructor is what time in fact do his students have for out-of-class study. The inquiry is not as to what time they ought to have. A deal of the bad department teaching springs from assumptions and expectations and hopes. This out-of-class study should invariably be only the carrying out of directed plans. The new passage in the foreign language should be run over by the teacher before it is attacked by the pupil. Assigning lessons that are absolutely new is almost research work, required perhaps ten years before the pupil has reached the research stage of mental power and habit. It is a sure way to drive learners out of school and college. But shall the learners never undertake new work? Yes, in class, with their teacher to guide them.

It is a safe principle that when the learners have but little time for home study, the teacher as far as possible shall follow inductive methods of instruction. This involves going forward but slowly in the subject. Where the time available for home study is large, one may follow deductive methods more safely. Of course, some subjects, and some topics in other subjects, have their method virtually prescribed by their very nature, but in many instances there is opportunity for choice.

It is one of the limitations of the department organization of the higher schools of learning that seldom does

## CLASS TEACHING AND MANAGEMENT

the teacher of a subject have charge of the study of lessons by the learners even during the school study periods. It is a common practice of teachers in secondary schools, and often a requirement of the superiors, that the entire time of the teaching period be devoted to oral or written recitations or other instruction. In some subjects, actually more progress will be secured by utilizing a portion of even a relatively brief period for directed study. This does not amount to an approval of what are sometimes denominated as "recitations with the book open." It means direct study under the teacher's guidance.

A third point that the department teacher needs to regard is securing an equitable portion of the time and interest of each pupil for his work in comparison with the time and interest secured by other teachers for their work. This does not necessarily mean that to each subject shall be given the same amount of time and interest. But all of a student's courses belong within the field of his duty, and the boy or youth who learns to slight any one of them is learning something that goes far to offset the gain made by perhaps greater diligence in other lines. Learning to shuffle an obligation is wholly unfortunate in its effect upon character.

This point is a matter for arrangement with the superior officers and with one's colleagues as well as a requirement to be enforced upon the learners themselves.

The advantages and disadvantages of department teaching are much discussed. In these discussions, one essential consideration is often ignored. Department teaching is a necessity in the higher stages of the progress of the learner in education; and the true question is simply at what point to introduce such teaching.

## DEPARTMENT TEACHING

The necessity for department teaching in the higher ranges of education arises from several facts. First, no human mind can compass at one time adequately and efficiently all the subjects that a class of learners should study. Second, as youths grow older, they benefit by meeting several different persons as teachers. They are brought consequently to several different points at which to look out upon and to get their own bearings in the world. Third, the subjects of the higher education have not only special methods but constantly increasing bodies of knowledge and of opinion; and the interests of teachers are in these subjects rather than in the learners. To give all the subjects that a class pursues to one teacher insures a larger interest on the part of that teacher in the learners than in the subjects taught, which is desirable in the years of elementary schooling but not later. Fourth, and not least in importance.—By giving different classes in the same subject to one teacher, the pupils have the advantage of studying this same subject for a longer period of time with that one teacher than is possible in graded school teaching: the teacher may have the class in that subject for two or three years. This establishes an educational *continuum*, whereas grade teaching establishes an educational *socium*. True education is like a cloth, with warp, woof and nap, and it has both length and breadth.

The extreme views in respect to department teaching are, first, that it should begin in the fifth year of school,—that is, in the middle of the grammar or elementary school course,—and, second, that it should be postponed until the third year of the four-year high school course. The common practice is to begin the departmental

## CLASS TEACHING AND MANAGEMENT

organization of the school with the first year of the high school; and the tendency is to introduce such an organization now in the last two years of the grammar school.

There is some advocacy of reducing the elementary school course to six or seven years and of enlarging the secondary school course to six years. When this is done either by establishing sub-high schools (or intermediate schools) in the place of our present seventh and eighth (or eighth and ninth) elementary school grades or by transferring these grades bodily to the high schools, the question at once arises whether or not to organize these pupils by the departmental plan. In the present state of pedagogical opinion, the question usually but not always is answered affirmatively.

Grade teaching is such a plan of organizing a school that each group of learners, usually about forty in number, has one teacher for all subjects. Occasionally, in a large school, there is an extra or special teacher for drawing or for music or for manual training, who visits every class that has the subject and instructs the pupils directly and is the only teacher of such subjects. But the common plan is to have these extra teachers only as supervisors making infrequent visits and instructing the class teachers rather than the pupils.

The necessity for grade teaching arises from the fact that in the transition from home and family to school, the child suddenly discovers not only the personality of another but by reaction the personalities of his mother and of himself. In discovering the teacher, he has found as it were the solid geometry of the social sphere. He learns that teacher and school are not in the same plane of life as mother and home. This



## GRADE TEACHING

is one stage of his self-alienation. He has begun to see that life is being, is becoming, is growth. The first day at school is almost as important in life as marriage. The first year at school is the year of a most difficult adjustment. In the kindergarten, there is, it is true, usually the assistant kindergartner as well as the principal kindergartner, but the kindergarten is not a rigid discipline. It is rather a new way of playing at life. The first grade is work. To say this is not to defend the great difference that now exists between the kindergarten and the primary school. It is to explain the difference by showing that the kindergarten is much like the home, while the grade is not like the home at all.

In consequence, the custom is to give first grade children to one teacher who is to study them, to teach them in all lines, and to convert them into "scholars." Whether the transition from home to school, or even from home *via* kindergarten (where the kindergarten exists) to school is ruder than it needs to be; whether by a reconstructed class-room, by a differently prepared teacher of primary work, by a different course of study, some of the best features of the kindergarten régime may not be carried over into the years after the learner is six years old; and whether then it will not be found best to give every class at least two teachers, are all questions in the theory of education lying beyond the present treatment. We may yet change many things in our elementary schools. But until our theory is changed and our buildings, normal courses, text-books and elementary courses are changed accordingly, the one-teacher-per-class will prevail.

The grade-teaching plan accomplishes certain results.

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First, the teacher knows what each child is doing in each and every subject, and what all the children are doing in each subject. There is a double association in her own mind. (Nearly all grade teachers are women.) She thinks of all the subjects in their relations with one another, and she thinks of all her pupils in their relations with each subject and with all subjects. The boy who is weak in arithmetic is allowed to devote to it a little of the time that can be spared perhaps from some subject in which he is strong. A topic may serve more than one use, by being brought into relations with several subjects.

To illustrate:—A history topic becomes the material for an English composition, and that in turn for a grammar lesson. In fact, effective correlation by the pupils can scarcely be secured in any other way than by having it first take place in the mind of one teacher.

A second result of good grade teaching is accurate grading and classifying of the learners so that pupils of about the same age and attainments and powers proceed together, with annual or semiannual or even more frequent regrading. Such grading and associating of pupils with one another is of advantage in that for the total number it promotes progress. Where associated pupils are very uneven as in the district school, the bright young pupils are stimulated by the presence of older pupils, but on the other hand these latter are discouraged by the superior quickness of the younger ones. Good grading as a matter of fact tends, at the critical ages of fourteen to sixteen, to hold boys and girls in school. A boy who is keeping up well with boys of about the same age does not like to fall out

## GRADE TEACHING

and to go to work. The dullards are the laggards, and the laggards usually drop out as soon as the compulsory education laws permit. Good grading puts the dullards about where they belong with brighter but younger pupils. In consequence, they pluck up some courage and do not lag so much as they would if overgraded. Well graded classes cover more ground than poorly graded classes, which is one of the advantages of the large school as compared with the small.

A third result of grade teaching is that the pupils do not stay long with any one teacher. This has two aspects, one good and two bad. The tendency in the graded school is to change the teacher every year or every half-year. There is a constant sense of the fact that promotion comes soon, and with it the new teacher. This saves friction. It promotes ambition. Where a pupil does not like a teacher, where the two temperaments do not work together well, the certainty of change before long keeps open the door of hope. But at the same time the frequent change breaks some hearts. Scarcely do teacher and most of the pupils come thoroughly to know and like one another than the teacher is changed. In the second place, the teacher who remains in teaching is apt to settle to a routine of the same grade or half-grade every year or half-year for many years. Instances are not uncommon in the East where the teacher has had the same grade and room for twenty-five years. In one instance within my knowledge, she had the same room and grade for forty years. It cannot be successfully argued that such a routine is favorable to the intellectual and emotional life of any person. When the teacher has but one subject for that number of years in a university, he may become a renowned

## CLASS TEACHING AND MANAGEMENT

expert; but the grade teacher not only has too many subjects for any such expertness but is required to keep too closely to those simple elements which are within the comprehension of the pupils to permit her to grow freely in the field of even one of those subjects.

In grade teaching, the teacher should first inform herself thoroughly as to the facts and principles of primary importance in each and every subject that she is to teach. These do not change much from decade to decade, for the course of study in elementary schools is now relatively fixed and is made up of universal matters. It is not enough to know these well enough to pass a graduation examination at a normal school. It is requisite to know them so well that nothing whatever in the way of class-room incident can drive them out of the mind. Teaching with a book in one's hand has entirely gone out of schools that to-day are recognized as good. The teacher must be an absolutely accurate speller, should know perfectly the multiplication and denominate number tables, should be thoroughly familiar with every line in each day's reading lesson, requiring no book to verify her recall of its words. The teacher who knows is the master, or mistress, of the pupils who do not yet know. She should write well, sing well, read well, draw well, perform every kind of arithmetical computation well, talk exceptionally well in sentences of the best construction. She needs to know "more than the books" of history and geography.

It is assumed that it has been a part of her preparation as a teacher to learn the key to method in each and every elementary school subject. But until she has tried these methods herself, she really does not know

## GRADE TEACHING

them. Those who do not look closely into elementary school teaching are apt not to see that there is as much difference between the first grade child and the fourth grade child as between the college freshman and the college senior. The latter difference has been much exploited and can be seen from far. The former (and to the development of character more important difference) has not been much exploited. In the same way, we have heard much of methods in college and high school science, but in fact methods in primary reading and number and geography, Nature-study, writing and music, manual training, physical culture, hygiene, and ethics, though seldom heard of beyond the doors of normal school and teachers' institutes, are as debatable, considerable, and critical as are any university methods.

The teacher needs to know the standard methods, the proposed new methods, if any, and the reasons supporting them.

To illustrate:—Which should be used, the phonic method of teaching to read, or the word-and-idea method, or the sentence-and-thought method, or the elocutionary expression method, or some eclectic method? Moreover, one who enters seriously upon this inquiry into reading discovers that it makes a deal of difference whether he is dealing with American children coming from American homes or with foreign children of many nationalities in the same room or with foreign children of but one or two nationalities. I am myself persuaded that the appeal to curiosity with phonics minimized is the right way to deal with children from English-speaking homes, but that phonics pure and simple constitute the true avenue for a class with many foreigners of a variety of nationalities. Interesting as this

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inquiry is upon its face, it is not more essentially interesting than the inquiry when, how and with what to begin Nature-study.

The university man studies at most four subjects at a time with four professors. The primary child studies twelve different subjects with but one teacher. There is no evidence that in the assessing of the world, the former enterprise rates as more important than the latter. We may think but we cannot really know which takes the more skill or the more consumes the energies of the soul. For myself, I hold that we constantly underestimate the endeavor and the achievement of the small child. In consequence, we constantly underestimate the endeavor of his mother and of his teacher, and their corresponding achievements in bringing him into knowledge of himself and of the world.

Not less does the grade teacher need to study the natures of children, in particular the natures of the children directly before her. She is a working psychologist, or else she may be a delayer and a thwarter of child-development. To know child-psychology means first to know systematic psychology and next racial psychology and then genetic psychology and last and most the temperaments and other qualities of all the different children in her care. Especially where her class has in it representatives of many different races does the teacher need to know something of race-psychology and its underlying somatology.<sup>1</sup>

Wanting such knowledge, the teacher is constantly tempted to overrate the importance of ideas, ignoring

<sup>1</sup> See Ripley's *Races of Europe*, a work of great value to all thoughtful teachers.

## DEPARTMENT TEACHING

the fact that some temperaments are unresponsive to ideas and others actually repellent of ideas, ignoring also the fact that the temperaments most responsive to ideas are the very ones that are least stable and the hardest to train to habits.<sup>1</sup>

When now in the light of the foregoing consideration of both department and grade teaching, we inquire when the former should begin and the latter end, it should be apparent that what we need is really a gradual transition. If it is best, and probably it is, that the children of the first five or six grades should have but one teacher at a time, it would appear best to make the next step not a sudden jump to four or five different teachers but to only two. And I venture the suggestion that a happy solution of the problem in large schools is to arrange the higher grammar classes in pairs, each pair to two teachers, and not to give the first-year high school pupils over three different teachers, classifying such pupils in trios of classes whenever feasible, three teachers to each group of three classes.

An unusually successful college teacher of biology was accustomed to say that the secret of his success was the fact that every day throughout his course, he reviewed all that his students had previously learned in biology. Whatever in this direction may be true of college teaching, it certainly is true of the best grade teaching that it is mainly reviewing, with but slight daily advance

<sup>1</sup> The first educator seriously to see this situation was Roger Ascham, tutor of Queen Elizabeth, who in *The Scholemaster*, 1570, wrote with fine discrimination upon this highly important theme. He had seen life in a large way and in this posthumous work said,—“A wise scholemaster will weigh most what his scholar, whether hard-witted or quick-witted, dull and knotty or light and merry, is likely to do hereafter.”

## CLASS TEACHING AND MANAGEMENT

work. It is also true of most of the good primary instruction that, given a choice of the several methods,—inductive, deductive and question - and - answer,—it chooses the first rather than the second and the second rather than the third. The throne-room of “the five formal steps of the recitation” is any primary room, and its hall of state the Nature-study or science lesson, in kindergarten or any grade, in college or university. The laboratory experiment is simply an exaltation of the second “step” of the “presentation.” The medical clinic, likewise.

For most Americans, for nearly two in three of the adults of this generation, the district school has been their only educational institution. With the recent rapid growth of large cities, of towns and of villages, and with the still more recent development of rural school consolidation and rural transportation of children from sparsely settled outlying districts to some common union school center, it is not true of the boys and girls of to-day that two-thirds of them will go, or are now going, to the one-teacher school for all their education. But at best we shall be fortunate if we can soon get one-half of the youth of this land into graded schools.

It is not true that the school of one teacher for all pupils and classes is always a poor school and inferior to the graded school of two or more classes and teachers. But the rule holds that merely to separate the small children from the larger and to give one group to one teacher and the other to a second teacher makes so great a change in conditions as to insure that the primary-grammar two-graded school is better than the one-teacher graded school.



## DISTRICT TEACHING

It may be defective reasoning, and so self-contradictory as to be witty; but the truth seems to be that the best way to improve a district school is to swallow it up in a union graded school. Better always one school of two graded rooms with two teachers for any number of pupils than any two ungraded schools of the same number of pupils, provided the two teachers are the same. This problem, however, of consolidating two or five or ten small or large one-teacher ungraded district schools into some kind of union school belongs to another kind of educational book, not to this: it is a problem of organization and administration.

Again to indulge in a remark that is a contradiction in terms.—In teaching an ungraded district school, the first thing to do is to grade its pupils. What the grading shall be depends entirely upon the number and proficiency of its pupils. A district school may have one pupil, and it may have fifty or a hundred. Schools of from seven to twenty learners are frequently maintained. The average age of the attendants may be ten years or eight years or twelve years.

In grading district school pupils, only the important logical studies should be considered,—namely, arithmetic and English (that is, reading, language and grammar). As to the number of grades, the numbers of the pupils in each grade, and the number of subjects to be taught to each grade, it is time wasted to attempt to set down rules. A few cautions should, however, be observed.

First, the grades should be as few as is reasonable. It is better to have three than five and far better to have four than seven.

Second, the classes should each have as many pupils

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as can be brought together without too great a disparity in powers and attainments.

Third, not over four different subjects should be taught in each day's program for one grade.

Fourth, the recitation periods should be as long as they can be made in justice to the total number of pupils and to the rights of each.

To illustrate:—A school of thirty-five pupils, ranging from six to fifteen years old and averaging ten years. 1. Make four grades,—beginners, high primary, low grammar, and graduating class. 2. Here the intermediate classes will probably number a dozen each, with half a dozen in the lowest and highest grades respectively. 3. Teach one program for Monday, Wednesday and Friday, and another for Tuesday and Thursday,—exceptions, the beginners should have some reading each day; and the highest class, some arithmetic. 4. Assuming that each of the four classes recites four times each day, in a school day of five and a half hours, recitations may average twenty minutes each in length; though—5.—it is better to cut this average to fifteen minutes and thereby to secure an hour and a quarter for individual help of the students by the teacher.<sup>1</sup>

The teacher of a large district school should be a college in himself. (One half of American rural teachers are men.) But until he has taught many years,—which he is entirely unlikely to do,—it is useless to ask him to know his subjects so well that he can teach all grades in all subjects with no book open in his hands. The nervous fatigue of such a teacher is so great that he cannot for many months continuously pursue the course of studying late into the night and thereby preparing

<sup>1</sup> See page 132, below.

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each day's lesson in each subject and correcting all the papers of all his classes in out-of-school hours. At best, the only fair requirement is to ask him to do all he can to master, and to keep fresh his mastery of, his subject-matter.

The rural district school-teacher should desire to know the methods of each subject and the devices for carrying them out and also the standard primary and elementary "general methods,"—but he cannot do so much. At best, the only fair requirement is to ask him to try to get the best methods in the essential studies.

Similarly, one might review the other requirements of good teaching in the light of the possible accomplishment of the rural teacher; but it is not highly profitable to do so. It is well for us diligently to consider two or three facts, however, before passing from this topic. First, the country child has several almost measureless advantages over the child of the city: he has the opportunity, the necessity and almost the certainty, of a sound body. He has, second, a mind not overcrowded with sights and sounds and notions,—a mind not trained to the dissipation of attention. Third, at school, at church or other neighborhood gathering, he has but a few persons to learn and understand. These he does learn,—as types; and by them he judges afterwards all others. Rural isolation may be bad for adults; but the world of Nature is the one right world for the child.

The large city graded school and its subsequent high school give to the city child an educational opportunity compared with which the district school at its worst is but a beggar's dole; but they cannot restore to the child his lost out-doors of field, woods, sky, sun, animals,

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flowers, few and close companions, and the immediate practicality of the farm or ranch or plantation.

There are certain observations that apply, with modifications, to all these places or kinds of teaching,—to secondary school department teaching, to primary or elementary school grade teaching, and to district school teaching.

The question is constantly coming up as to what portion of time should be devoted to written work. It is sometimes said that when a poor teacher does not know how to discipline a class, he sets them a writing exercise. The best educational opinion seems to incline to the view that an abundance of written work marks the strongest schools and the ablest teachers. In the grades where writing should be emphasized,—the drill-and-habitation grades from fourth to sixth or seventh inclusive,—writing of all kinds of exercises for penmanship, in spelling, in history, geography, arithmetic, composition, and in “memory gems” should occupy half of the school day. Writing tends to accuracy, to thoroughness, and to closeness of reasoning. All formal reviews, most tests, and many recitations should be written. Writing covers the ground but slowly,—or it covers but little ground. Rather let us say that it plants seeds, sprouts, bushes, saplings. When one has told something and then has written it out and read it aloud, one probably understands it.

Another question is that regarding the length and the frequency of tests, reviews and examinations. The fundamental facts of the learning process show that every advance lesson should begin as a test and review of what is already known. Lest this answer appear to be a quibble, let it be said that the frequency of the

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occasions when the entire time of the class should be given to all-review work should depend both upon the subject and upon the age and grade of the students. All-review lessons should come more frequently in informational than in logical studies and more frequently in lower grades than in the higher. To be specific:—An all-review lesson in history should come in the seventh-year elementary school grade at least every two weeks, and in a third-year high school grade, at least every four weeks. An all-review lesson in grammar need not come so frequently.

In this same connection, it is asked whether one may wisely devote a week or a fortnight to all-review work every six weeks or every twelve weeks or only once a year,—in preparation for a long examination. The best practice reviews the class for a week or so at the beginning of each term,—say, each half year; but it does not require the same length of review for each subject. The best practice does not examine pupils,—in the old sense of trying in one set, exhausting paper to find out both all that they know and all that they do not know,—at any period in their course. Despite all the asseverations of many, a thing of this kind seldom occurs in real life. No high school entrance paper should consume over an hour and a half of the time even of slow pupils; and each paper should aim to take less than an hour of average pupils. The purpose of an entrance test is to sample and to analyze, not to exhaust a pupil's knowledge.

Upon repeated tests of tens of thousands of pupils, I have generally found that those who get 90 per cent. upon a paper of twenty spelling words get 90 per cent. upon one hundred words. Those who get 50 per cent.

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upon six questions in arithmetic get 50 per cent. upon ten questions. Examinations alone should not govern high school admission; but daily work and the teacher's own estimate of power to go forward should be mathematically calculated with the examinations.

It should be, in every city school system, a standard of the class-room teachers' opinions to control and limit the authority of the central office that the superintendent's and supervisors' examinations should never affect the pupil's own record on the books but should be solely tests of the teacher's proficiency and guides to the higher offices in how to help him or her improve as a teacher. On the other hand, for such records, the teacher should not himself or herself mark his or her own pupils' papers.<sup>1</sup>

It is sometimes set up as an argument against department teaching in grammar classes that one poor disciplinarian, going to several classes, can spoil the work of all the other teachers. The answers are that, as stated above,<sup>2</sup> two teachers for two classes make as extensive a specializing as sound pedagogy warrants and that no poor disciplinarian should survive in any kind of school organization, whether department or grade. Poor disciplinarians are destroyers (tearers down) of children's characters. If department organization tends to throw a searchlight upon poor disciplinarians, so much the stronger is its claim upon the approval of educators.

It is sometimes asked whether or not district school teaching is harder than elementary grade teaching, and grade teaching than high school department teaching, and such teaching than the college professor's instruc-

<sup>1</sup> See page 63, above.

<sup>2</sup> Page 83.

tion: if so, why does this mark an ascending scale in respect to teachers' salaries,—rural teachers getting the least "pay" and professors getting most? The answers are several. First, an examination of the statistical facts shows that the ascending scale is by no means uniform,—is indeed partly mythical. Second, money is a poor and faulty measure of values,—the dollar has no standard purchasing power. It buys more in St. Louis and Memphis than in New York, more in New York than in Denver, far more in rural Vermont or Virginia than in rural Ohio or Colorado or Washington. Third, even if the scale were a fact, it is still somewhat true that the higher the money-return of an employment,—as Aristotle said,<sup>1</sup>—the more degrading and unfit to a free-man is that employment. In short, wages and compensation have nothing whatever to do with a man's or a woman's value to this world. Many persons get too much income to render their best service. Beyond a doubt, most teachers are paid far too little; so also are many preachers, artists, poets, physicians, inventors, authors, statesmen.

It is often said that the various subjects of the school curriculum may be divided into the

1. New and not generally approved.
2. New and approved.
3. Standard.
4. Old but generally approved.
5. Old and no longer generally approved.

<sup>1</sup> *Politics*, Book VIII. Lest it should be said that this opinion is valueless because "Aristotle was only a bookish philosopher," I venture to recall for consideration here the fact that Aristotle was a practical chemist and druggist, keeping a pharmacy in Athens.

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In this connection, it is profitable to notice that as district schools consolidate into union schools, as grade teaching gives way to department teaching, as common education to grammar school graduation broadens and lengthens into universal education to high school graduation, the schools discard the old and useless topics and subjects, regenerate the standard subjects, and add the new and convert them into educational disciplines. In other words, the mechanism described in this chapter reveals itself as the means by which the spirit of progress conquers things as they are and introduces more of the things that should be.



“The curiosity of children is a natural inclination that goes out to meet instruction: fail not to take advantage of it. Questions are openings that nature offers in order to facilitate instruction: express pleasure in them. Answer them, and add little comparisons in order to render the answers more intelligible. When they express a judgment of something without knowing it well, it is needful to embarrass them by some new question, in order to make them feel their error, without rudely putting them to confusion. Let them see, by some practical mark of esteem, that we approve them more when they ask what they do not know than when they decide. This is the true means of imparting to their minds, with politeness, a genuine modesty, and a contempt for the wranglings that are so common with young people of slight intelligence.”—FÉNELON, *On the Education of Girls*. 1681.



## CHAPTER IV

### THE TEACHER AS INTERPRETER OF THE COURSE OF STUDY

The child's world.—Qualities requisite in the teacher.—A philosophy of life.—Prevalence of one temperament among teachers.—The dominant importance of ideas.—A philosophy of knowledge.—The problem of the adjustment of foreigners to Americanism.—The unity of mind.—Scholarship and conduct.—Ethical *versus* materialistic views and principles.

ONE who lives at home, on the street, in the school-room, on the playground so intimately with children and youth as to discover what they think, learns that to them the school means, first of all, the teacher, and next the playmates, then the day's work with its studies and exercises, and next the books and educational apparatus, again the supervisors and the principal, and last, least, and often scarcely noticed, the books, equipment, furniture, and building. In this, the school world of the child, the teacher and the playmates are far more than all the other facts of the school environment together. Often, the school world is of far greater interest than the home world: this is commonly true of both well-to-do and poor children in cities. The school means society and human experience.

It is difficult indeed for an adult to get back to the child's view of that other adult, his teacher. And yet until one who would comment upon the teacher does

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get the child's view, one's comment is certain to miss the mark. One may indeed be firing east when the mark is north.

The two worlds of the child,—his home and his school,—are not all the worlds of the youth at school and at home. The youth has found a third world,—adults. The child does not yet know adults. He respects their existence, though they are not a part of his life. He does not view his mother or his teacher as “grown-ups,” but as special dispensations of Providence, dowered with omnipotence, omniscience, and omnipresence with reference to him and his concerns. They serve him in lieu of what later he is likely to know as “conscience.” From them, he gets both his echoes and his social reactions. In this sense, his mother and his teacher are part and parcel of himself.

The persons of a child's society are his companions, the other children. The dog and cat are not merely “creatures,” but a kind of individual, sub-human or sub-childish or semi-personal,—as it were, the ghosts or shadows or similitudes of persons.

That is a sad day when the child discovers,—from whatever cause or act,—that his mother or his teacher is not really “perfect” and worthy of his whole faith. It is, of course, a sad day for any one to learn that a friend has faults, or makes mistakes, or is guilty of sin. These things must come into life, but the longer the child lives in the paradise of trustfulness the better.

It is exactly this attitude of the child toward his teacher that condemns at once three several acts that are occurring every day in some American school-rooms.

The faith of the child in the goodness of the teacher is rudely broken when that teacher does anything in

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anger. It condemns public corporal punishment. The teacher who goes about rapping the knuckles of children, when they do not conform to her notions, sets up fear and distrust and disapproval in the souls of all the members of her class. The teacher who speaks to any pupils in sarcasm or in any other tone than that of goodwill is a traitor to the republic of children and youth. The teacher who reads into the actions of children motives of which children are incapable, and who condemns them out of hand, is a public enemy in the way to make criminals and social outlaws.

The faith of the child in the competence of the teacher is attacked when a supervisor makes any public criticism of that teacher. It does not always follow that the teacher herself is damaged in the child's mind, but either the teacher or the teacher of teachers, the supervisor, is damaged. This affects in the child's mind the authority not only of the teacher or supervisor, but of the school itself, the social institution in which the teacher and the child are living. It is this that renders public controversies over the schools so unfortunate. The child hears some teacher or teachers attacked, and his confidence, which is to him the breath of life, is shaken or impaired.

The faith of the child in the worth of the teacher is diminished by every error that she makes or every absence of knowledge that she displays unless the child, who has his own kind of common sense, sees either that the error is trivial or that the kind of knowledge is beyond the ken of mankind or beyond the child's own needs. A fourth grade teacher who makes errors in addition or multiplication or spelling causes the child to feel that he is walking in quicksand; but the same

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teacher may admit freely that she does not know, for example, the child's native language or why the earth does not collide with the sun or who was "the Man with the Iron Mask." It greatly impairs the ability of the teacher to help the child for her to have a very small vocabulary and range of expression. A supervisor is likely to notice this; but the child, who does not notice it, suffers its results. A deficiency in language power deprives one from being intelligible to one's listeners; and many a school-room suffers in consequence. The child does notice and suffer from loss of confidence in the teacher when she uses slang or otherwise offends against his preconceived notions of the dignity of the teacher.

Of this natural reverence of the child for the teacher, I have observed a significant item of evidence. In several cities, it has been the custom of street-boys to "call after" the school-teachers. I never knew a case where even the rudest of these boys used any opprobrious terms when "calling after" teachers whose own language and manners in the school-room were pleasant, dignified, and judicious.

At any rate, in all normal instances, the child of the primary grades reverences the teacher as an oracle and looks upon her teaching as a ministry of grace; the older boy or girl of the higher elementary grades respects the teacher as a good and wise person, glad to help them. With all their sophistication, the youths of the high school are apt to be generous in the judgment of their teachers, and to err, if at all, on the side of too great admiration for them. All children know that but few adults, other than their own parents, care anything about them; and most of them are grateful, accordingly.

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This disposition of the child toward the teacher gives to her such power over him as almost to warrant his belief in the generous extent and noble quality of her greatness, goodness and wisdom. In reference to him, the teacher is important beyond the importance of any other person at any time in his life excepting only his parents and sometimes his wife. Through her eyes, he looks out once again upon the heavens and the earth, and lo! they are a new heaven and a new earth, and former things have passed away.

To the learner, the teacher interprets knowledge and life. She tells him of good and evil. She prescribes this and proscribes that. She is often his intellectual mother.

To interpret is to explain, to make plain. Perhaps, literally it means "to set the price of" as of merchandise passing between seller and buyer. The teacher sets the prices upon the various articles of the course of study. In the most rigid of city school systems, with their elaborate courses of study and syllabuses of planned work to carry these courses out, with their principals, department heads, specialists, inspectors and board of education members, to see that these courses are carried out, with their pressure of public opinion through parents, citizens, taxpayers, newspapers upon teachers to do this assigned and expected work, and with their teachers almost uniformly prepared, in the same grade, at the same period in the term, with the same lesson before them,—one set of children will learn one set of facts with one body of opinions, and a second set of children a second set of facts with a second body of opinions, and so on throughout the system in the classes of that grade.

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Of course, the varieties of topics that the pupils learn are most numerous and extreme in the cases of the informational studies, next in the psychological exercises, next in the logical studies, and least in the physiological exercises. However hard they might try to do so, no two teachers could give the same courses in United States History or in English Literature. They could not give exactly the same course even in calisthenics.

What a teacher most of all teaches in the year, more or less, of association with his or her students is a philosophy of life. It may be a crude, an inconsistent, an incomplete philosophy of life: indeed, it probably is. The rational and sane human being who is without a philosophy of life does not and cannot exist. This philosophy of life, so far as it is unconscious, is the result of his temperament and issues out of his natural reactions from the events of his experience. These events of his experience depend in part upon these very reactions. An event is a collision of forces. In the case of a personal experience, the event consists in the collision of the outer forces with the inner. The former are not under the control of the individual, the latter are the individual's own nature, whether congenital or acquired, or in part each. Temperament, then, is one factor in the event, and temperament, in the period of reflection upon the event, helps produce the philosophy of it. But as the event is partly a matter of internal forces and partly a matter of external forces, so also temperament is not the whole matter of the philosophy developed in the period of reflection upon the event. There are two other factors. Of these, the first are the notions that the individual had accumulated hitherto. These notions are partly due to the environment of his



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life, partly to the original temperament, and partly to the original and acquired powers of the individual.

To interpret the course of study, the teacher needs a profound and intimate knowledge both of the society from which the pupils spring and of the nature of the human mind. We sometimes call these things "sociology" and "psychology," but these terms do not well serve our purpose, for they seem abstract whereas what is intended in each respect is entirely concrete. The teacher needs to know how people live, the causes of prices, wages, rents, interest, taxes, insurance, credit and debt,—the curious modern manifestations of tribal, clan and family relations, gangs, secret clubs, unions, conspiracies,—the history and nature of the farm, the factory, the mine, the bank, the store. Seeing these facts more and more clearly and largely every day, he will see that the child is a product (not wholly with verisimilitude to things modern but rather a condensed and revised edition) of ancestral lives through untold ages, not a resultant compound but a selection of past forces. Not less does the teacher who would interpret the course of study in terms within the comprehension and use of the child investigate and consider the internal structure of this heir of the ages. In the child, every cell has ancestral memories. Considered as an object of study, the child belongs to biology as well as to psychology and to physiology. The teacher who has not penetrated into that holy of holies of knowledge wherein he sees that each human soul is not only a person and an entity but also an imperfect synthesis of partly inharmonious items of mind and matter is a long way off from knowing the subject to whom he must interpret the course of study.

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The teaching office is a constant command to learn yet more and more.

To say this is not to say that the teacher should deliberately aim at mastering all the knowledge that bears upon human problems. Such mastery is hopelessly beyond any modern man or woman.<sup>1</sup> Only through thousands of different students can the race now hope to keep alive all that men to this time have garnered. But the purpose to keep all these fields of knowledge within one's general view, to compass them in this sense of being alive to their meaning and of being intent to use their meaning for educating boys and girls, is within the opportunity and is part of the duty of the teacher. In other words, it is a part of the profession of the teacher to know and to be able to handle freely all knowledge of definite value in his school affairs.

It would be beyond the range of this treatment to indulge here in exhaustive reflections upon the differences of individuals in temperament, or upon their differences in home environment, in economic condition, in social relations, in religion, in all that goes to make up the location of one in the world, or upon their differences in powers. In respect to the last feature of mankind, all attempts at quantitative measurements have failed. We know that one has a psychical rate five times as fast as another, that one can see three things in a given field, while another may see seven, that one person can hear ten items consecutively and remember them, and another hear fifty, that one can retain in the memory with great accuracy and for long periods, while another errs

<sup>1</sup> For a bibliography of knowledge as it concerns teachers, see Chancellor's *A Theory of Motives, Ideals and Values in Education*. Appendix.

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immediately on simple matters, that one person has good judgment, another but poor judgment, that one strikes often and lightly while another strikes slowly and heavily.

Also, it would be beyond the range of this treatment to discuss the differences in the outward social graces, in voice, in attentiveness and consideration and kindness, in taste as to dress, in the thousand and one things that go to make up personality.

These are differences in motives, in ideals, in sense of values in life.

But it is highly appropriate to make a few brief statements as to some prevailing conditions in our public schools. Nearly all teachers, both men and women, are of one temperament, either in its simple form or mixed or compounded with other temperaments. Nearly all are nervous or ideo-motor. Nearly all are quick, impulsive, active, eager, industrious, idealistic, ambitious, conscientious, sentimental, emotional by nature. They have inevitably the defects of their qualities. The tendency of the quick is to be impatient with the slow, of the impulsive, to consider the reflective as cold, of the active to underestimate the usefulness of the thoughtful, of the eager to assume that their eagerness is always a virtue, of the industrious to discount the value of the leisurely (and it may be even of the lazy) in the throbbing social life of cities and in the gossip and fret of the towns and open country, of the idealistic to misconceive the function of the realistic and materialistic, of the ambitious to look down upon the contented, of the conscientious to fail to see that the conscience of the motor individual is necessarily a different thing from the conscience of the sedentary, of the sentimental to fail to consider

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that the matter-of-fact may really be alive though they do not feel quickly, and of the emotional to fail to understand the uses of the calm. It is quite beside the mark to deplore the situation whereby it has come to pass that the schools are monopolized by the men and women of motor-efficiency, and nervous motor at that, whereas on the whole ours is a muscular-motor people, constantly being recruited from the muscular-motor peasantry of Europe. All that we can well do in the situation is to call attention to two several facts,—(1) that no temperament has any monopoly of the virtues, though each, until corrected, is wont to assume that its own qualities are the virtues, and (2) that no temperament has any monopoly of ability and capacity, though each temperament is wont to assume that its powers are those of the highest order.

It is peculiarly hard for the nervous motor teachers of our schools to learn universal sympathy. It is likewise hard for them to learn to acquire the patience that gives the “dull” muscular-motor and corpulent-vital children time to summon their wits and to answer to the best of their ability. Many and many a boy and girl is misjudged because the teachers are not wise enough to see their fundamental natures. Moreover, these same nervous teachers are sometimes impatient with children of their own type. It is well for all of us to remember that education is in part the thorough and permanent acquirement, without hypocrisy, of some virtues of temperaments not our own.

By reason of these nervous temperaments, it follows that few of our teachers nourish long and great resentments, few waste much time, few are cold and distant, few are slow and dull, few are unpunctual or dilatory

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or ineffective, few are victims of any physical vices, few are pedants or bookish or out of touch with reality. But it is characteristic of this temperament not to accumulate great reservoirs of vital reserve, not to be well and strong and at ease. The temperament is explosive, and easily exploded at that. It is executive and not judicial. It is also a law-making temperament because to establish laws is thereafter to save thought and to permit action. It is also a temperament greatly inclined to tradition, for tradition also saves thought and permits action. It greatly esteems habit, for habit gives freedom.

Obviously, such a temperament is peculiarly adapted to school-teaching.

When itself tempered by a truly feminine nature, and when it characterizes a person of considerable natural ability, the ideo-motor temperament helps make the ideal primary teacher. The person is vivacious, kind, quick, affable, responsive, and has many other traits admirably adapting her to care for small children.

But temperament is by no means all of life and conduct. In a certain sense, the older one gets, and certainly the wiser one gets, the more one outgrows one's native temperament. Even the limitations of it are overcome. Consequently, superficial readers of human nature, who profess to know what a person is like as soon as they see him, are often greatly misled. In a certain sense, ideas are far more important than temperament, the only qualification being that temperament causes one rather persistently to reject opposing kinds of ideas. Here we come to one of the more important principles of education, that the teacher often

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should persist in that definite training of a learner which he most resists.

In fact, this is education,—to make to come forth from the educatee qualities that are not likely to appear but for and because of compulsion.

The first thing that the teacher is to recognize in dealing with younger human beings is that they are now to see the world through his eyes. The course of study constitutes a panorama of views of the world. Its pictures move slowly or rapidly as the teacher moves them. The very moods in which the onlookers observe the pictures are largely the making of the mover of the panorama. These moods are matters of the adjustments of the various temperaments of the teacher and of the pupils. The panorama may move very, very slowly, but it cannot stop, and it cannot be reversed, for the process of time is irreversibly forward. The rate can be greatly varied, or it may be made monotonously the same. Some pupils are all the time losing some picture of the panorama. None observes them all. To announce "Same lesson to-morrow" is only juggling with terms, for there are no "same lessons" in life, not even in school-life. Even review lessons and tests are in part advance work. In them, one sees more of the panorama, by climbing higher. Often and often in the review, one learns more of what is really to oneself new material than in any advance lesson. But what one sees is largely what the teacher points out.

Secondly, in interpreting the course of study, the teacher needs constantly to keep in mind the great units of the relation of its subject-matter. What the child sees are, as it were, *dissecta membra*, scattered limbs. Even in high school and college what the youth sees are

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but regions of knowledge rather than wholes. These relations are not to be taught to the pupils; but they must nevertheless not be lost sight of by the teacher, for they give coherence and lucidity to his teaching.

To illustrate:—That interest is but a higher mode of percentage, percentage but a mode of fractions, fractions a mode of ratio, ratio a mode of division, and division a mode of subtraction, which last by paradox is a mode of counting or adding the unit,—all this does not greatly concern even a bookkeeper in charge of accounts and certainly is beyond the needs of the primary child; but the teacher needs to see these and even more extensive relations of quantity and number in order to follow the true order and method and to interpret correctly the errors of the learners. In such a subject as history, the teacher must know all the great movements in their causes and chronology and comparative relations in order not to be puzzled himself by the events that he discusses with his class. It may indeed be that only a few of the facts thus assembled will ever be actually required in his class teaching,—that the knowledge does not often save him from confessing ignorance to his young pupils,—but this is not so much the principle in issue as that to keep his class in the historic track, one must himself know both the track itself and its place in universal and comparative history. To be specific: We can hardly expect our elementary school children to understand the meaning of the slavery question as adults understand it; but the teacher who does not know that behind the slavery issue were ages-old ancestral traditions of slavery and the primitive dislike of work confronted by a new social order of free wage-labor and a new sense of the dignity of labor as a means of ambition is certain to misinterpret much of what both Douglas and Lincoln, both Calhoun and the New England poets said about slavery.

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Third, to interpret the course of study, the teacher needs a philosophy of knowledge. It is not enough to have a philosophy of personal conduct and thorough and complete knowledge of the subjects to be taught. One requires also an understanding of the relations of the great subjects of thought and science to one another. That arithmetic is the working tool of all science and also of all economic relations among men, that geography explains the physical basis of history and history tells the significance of geography, that reading and language are the gateways to all human intercourse upon the plane of ideas, that biology is the key to physiology and physiology the key to psychology and psychology in turn the key to philosophy are a few of the simplest facts in a philosophy of knowledge. One needs never to allude to them in an elementary classroom, but one who is constantly in such a classroom needs to have a mind that organizes its actual teaching output and conducts the discipline of the pupils in the light of just these facts. It is quite beyond the range of this treatment to present a philosophy of knowledge, but it is highly appropriate to say here that one who intends adequately to interpret the course of study to children will constantly throughout life endeavor to get clearer and larger views of the interrelations of the knowledge-units afforded by the great forms and modes of thought, such as time, space, cause-and-effect, relation, quality, quantity, force, motion, beauty, necessity, duty, and life. To weave together the strands of all the class-room activities into the texture of living mind, the teacher needs himself to make of the warp, woof and nap of his own knowledge a true cloth.

To promote this harmony of his own powers and to



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offset some of the disintegrating influences of association with immature minds, the teacher needs to keep diligently in the way of association through books with the best minds of the race in their products of poetry, drama, essay, fiction, science, philosophy, history, and in the way of companionship with the ablest adults of his community. This is far more necessary for the class teacher than for the supervisory officers who are one or more removes from direct contact with children. In fact, for the supervisory officers, precisely the opposite caution is necessary, for what they need most is to try to get into touch with the children for whom all their plans are provided and whose nature they need to know and to feel constantly.

As interpreter of the course of study to young persons, the teacher needs to know specifically certain items of sufficient importance to be enumerated here. They are all involved in the foregoing generalizations; but lest they be lost sight of, I enumerate them. Perhaps others are of equal importance, but none can be of greater importance than some that follow here, or are included above.

First, life is a process, not a status; a flood, not a pool.<sup>1</sup> It is in part a physical process, with marked stages. It is a process of adjustment of inner forces impinging upon and being impinged upon by external forces. These inner forces may be considered as the heritages from past ancestry. Few of them are in evidence at birth: they keep coming in every day in later

<sup>1</sup> Nature is being born. Life is growth,—being exists only as becoming. Nothing now is, but everything is coming to be.—See Weber, *History of Philosophy*, on Hegel, p. 502. (Thilly, translator.)

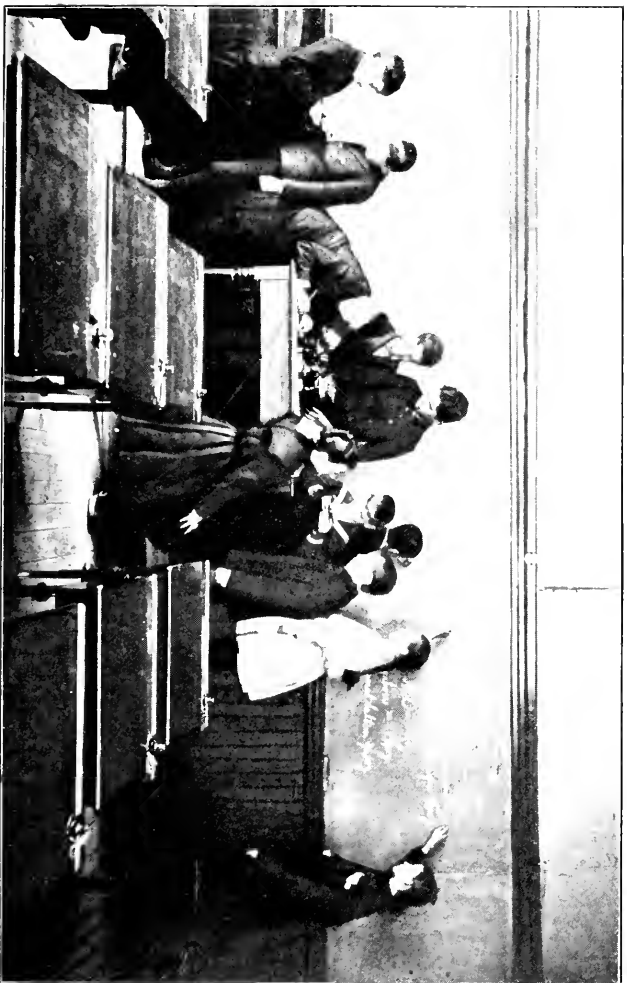
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life. This is especially notable at adolescence when in four or five cases in twenty the child who has been like some maternal (or paternal) ancestor swings across into the likeness of a more or less opposite paternal (or in the other instance maternal) ancestor. One suspects that some lines of cells atrophy while other lines come vigorously into action. The outer forces include climate, housing, labor, food, clothing, hours and conditions of sleep, air, bathing, economic ease or anxiety, and similar matters.

Life is mainly a psychical process, likewise with marked stages. This also is a process of adjustment of inner forces,—aptitudes, dislikes, resistances,—impinging upon and being impinged upon by external forces. Each stage in the adjustment of notions and habits is either a victory, a defeat or a compromise between the character,—intelligence, efficiency, morality,—of the individual and the ideas that came before him. From the day of his birth to that of his death, a man is his reaction, that is, his temperament. But this “reaction” or “temperament” is not a fixed mould but a fluid condition.

Second, each soul is free, to a certain undeniable extent. Each soul can withhold its action, can elect to do nothing. One cannot create his environment, but one can (1) resist it, if need be to death, or (2) reconcile oneself to it or (3) do nothing.

This truth is of the greatest importance in teaching. It is the touchstone to test the educability and the virtue of the child. The nature of his freedom,—of his choice in the presence of opportunity,—constitutes the limits of the educability of a pupil. In this sense, education is a moral issue rather than intellectual. And



NATURE-STUDY APPLIED TO ARITHMETIC



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the teachers of the world so proclaim it, everywhere asserting that industry is more than a substitute for talent since industry produces talent. In the sense in which teachers use this term "industry,"—or its equivalents in other languages,—it means the free will that chooses to undergo pain and fatigue and deprivation of ease and of pleasure in order to pursue ideals and to effect changes in one's own nature.

Third, modern society is a vast complex that may be analyzed as in part institutional, in part dynamic, in part factional and in part individual. The great social institutions are property, family, religion, occupation, government, education, amusement, charity, business, and war. These institutions are social habits affecting the general welfare so strongly as to compel the unquestioning support of nearly all individuals. The dynamic factors of a modern civilized society are its associations and movements, such as parties, causes, reforms. Institutions are conservative, movements are progressive. Clan and tribal tradition and habits persist into modern life in many forms and modes—such as cliques, conspiracies, secret societies and clubs, the factions between parties, the boss and the gang. Lastly, we have the individuals, of whom some are blessings to community and nation and some are curses. These individuals live, work, play, seemingly alone. Some are men of genius: some are criminals.

It is necessary clearly to see that institutions, movements, factions and individuals cannot all be classed as "good" or "bad." In some respects, some of them are bad or pernicious, others are good or benevolent; and still others apparently are indifferent.

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To illustrate:—It will not serve the cause of historic truth or the further progress of the race to assert as many now do that “war is evil,” and that “peace is good.” War is often the price of righting wrongs,—a purification by blood and death. Peace nourishes both wheat and tares: a society long peaceful is always corrupt and overtolerant of corruption. Peace invariably organizes hypocrisy. In a world of peace, men become mummers. In a world of war, they become frank and real, whereby the sheep’s clothing is torn from the wolf. And yet war is worse, both peace and war being alternately necessary until the end.  
—*Daniel ix:26.*

To illustrate again:—Education is not always the greatest of blessings to an individual. (I am using education here not in its philosophical sense but popularly.) The actual education of many a boy has been a training in the hypocrisy of assuming a virtue when one has it not.

We may well note that many social movements are retrogressive and calculated to reproduce former conditions which the society had outgrown. Though the proposition is not universally true that revivals of past conditions are always unfortunate, the historical exceptions are few until the time when a society turns down grade and general deterioration has set in. Teachers as well as all other citizens may wisely view with suspicion all social movements whose engineering proceeds from persons but recently come from Europe. In his transformation into an American citizen, the Hungarian peasant, the German soldier, the French bourgeois, and the English mechanic sometimes try to impose monarchical, feudal or tribal conceptions of class and mass upon our democracy.

To be specific in this connection: Nothing is more

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important in American life than the independence and entire separation of Church and State, government and religion. So highly regarded by most Americans is this principle that the general tendency in most States is to extend it to the independence and separation as far as possible of State and School, government and education, or more plainly politics and teaching.

Again to specify: According to modern psychology, the mind is one life, manifesting itself in various forms and modes,—in “faculties” or facilities, in single actions or ideas, judgments, endeavors or in series of actions or habits, purposes, intentions,—in other words, in functionings either central or peripheral. That mind is not yet well-educated which seems to have “compartments” with no intercommunicating doors, which is inconsistent, disorderly, irregular, which does not go steadily and gradually toward some goal but flits about purposelessly or rushes hither and thither hop-skip-and-jump. That teacher does best who takes such a principle as that above regarding the freedom of government from ecclesiastical relations and the freedom of religion from political relations and uses it judiciously both in his history-teaching and in his own conduct toward all others including his pupils. Such is the concrete meaning,—in a single phase,—of the unity of mind. What is the value of knowing arithmetic unless one who is employed and in good health can keep one’s own financial affairs solvent?

The teacher as interpreter of the course of study should be an example, a model, an exemplar, both of the scholarship implied in the course and of the conduct appropriate in the scholar. To the mind of the child, perhaps these two qualities become most evident

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in two specific phases,—scholarship in the sense of accurate information in reply to the questions so common upon the lips of children, and conduct in the sense of fulfilling those duties which are so often the subject of a teacher's homilies.

The teacher who does not know how to answer in detail such questions as "I thought that the Mississippi was the biggest river in the world, isn't it?"; or "Oh, is Longfellow dead! When did he die?"; or "What use is this algebra, anyway?"; or "Please tell me the meaning of 'feudal'?",—the questions are legion,—not only loses an opportunity, occasionally priceless, to feed an inquiring mind but loses also some measure, however small, of the confidence that every small human being instinctively places in the authorities.

But the ethical aspects of this matter are yet more important. We demand of adults certain virtues, many, though not all of them, beginning in early childhood. The moral growth may perhaps be expressed in these stages:—Children obey persons, youth obey maxims, young men and women obey principles, and mature men reason, in each stage realizing thereby the highest morality within their possibilities. When children try to obey maxims, they get into just as much trouble as when they refuse from whim and caprice to obey the direct and specific orders of persons. At the other and higher reach of the moral scale, for grown man to apply principles rigidly is often to fail of the better morality. He must reason and adjust principles to conditions, even though to narrower and less experienced men he seems to violate some one principle. But is there no highest quality that is invariably right? Undoubtedly, but it is a quality that is largely rational and not often



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prescriptive of details,—honor or loyalty. In the conflict of the good qualities, the lower must always give place to the higher within the range of the individual's age-limitations; and virtue consists not in being good but in becoming better. We decry the "school-boy honor" that causes him to conceal the derelictions of his fellows, because honor in this instance is a barrier to the enforcement of special rights. To be specific: In my own experience, a high school during a session was set on fire by a senior pupil to conceal the theft of a valuable microscope. It took the authorities two weeks to break down in that school the silence imposed upon all tongues by "school-boy honor" and to discover who set the building on fire, and why. The culprit was then placed for a term in an asylum for the criminal insane upon the recommendation of competent alienists. Of course, with an incendiary about, no life was safe in that school. It does not follow that such honor is invariably to be broken down, for it is the "mother" of a later honor that is righteous and necessary.

The great word of morals is "duty," and duty is nothing but obedience to the authority that the person should recognize at his age. The highest duty of the full-grown man is to follow his own best judgment, all things considered, which literally involves trying to consider all things, including whatever may appear to be "the will of God." But the highest duty of the small child is promptly to do what his mother at home or his teacher at school orders him to do.

In the course of study of the elementary school, there is one subject greatly concerned with the defining of one of man's highest duties, patriotism; and this study

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is American history. The scorn that men of the generation of the Civil War felt for those who stayed at home was due to the fact that when the life of one's nation is at stake, one has no right to stay at home even to provide support for wife and children. To our country and its institutions, each one of us owes life itself in the literal sense, for our country provides the relations of property, business and marriage whence each one of us issues. Our country gives us being and maintains us. It is our father and our mother. It is a matter of duty to the teacher of elementary children in higher grades and the high school teacher to teach, and quite within the comprehension of such children and youth to learn, the meaning of patriotism in times of peace and in times of war. One of the great deficiencies of the American character is the unwillingness of the so-called "better class" of citizens to serve their country in public office in times of peace. Such citizens usually allege "pressure of private business" or "too great sensitiveness to criticism," forgetting that salaries of public officers should be small, so as to secure the services of the unmercenary and patriotic and to exclude others, or forgetting that the sense of doing public duty bravely is one of the finest qualities of human nature. One of the beautiful things about teaching is that it is a non-mercenary occupation, providing only a livelihood and seldom a generous one at that. It may indeed be that the teacher is underpaid and should receive a more generous living, but no wise man desires to see teaching in public schools (or any other office of our democracy) an occupation of profit. Upon the lips of teachers, therefore, the inculcation of the duty of unselfish patriotism is appropriate.

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Since the teacher is conspicuously the person who teaches and practices in a democracy,—side by side with the soldier, the policeman, the fireman, and the government clerk,—the quieter duties of patriotism, it is proper for him to consider the question of the relation of the individual to the secret societies, the factions and clans that persist into modern life. These concern women but little, though they concern men greatly. Only the Chinese Empire has more of this secret and factional life than has the American Republic. Strong central governments never tolerate such organizations freely. The peace of the past forty-five years has permitted the multiplication of all these kinds of societies. Whether or not they tend to the more liberal humanity that is the order of the time to come must, in each instance, be inquired into as a matter of fact, but so much as this the teacher should inculcate and exemplify that he should encourage only such secret clubs and divisive factions as he believes surely help forward the general welfare.

There is a fine materialism, elegant and often fascinating, that is just as dangerous to the best life of the teacher as is the gross materialism that is so plain in most of the affairs and concerns of our present stupendous civilization. The delightful materialism, on its surface, appears conducive to the best interests of the spirit. It draws attention to the machinery of education,—to finer buildings and more commodious, to larger salaries and to better tenure of office, to more artistic methods of teaching, to travel and to culture; and it says,—Seek these things; for when you have them, you will be able to do better work as teachers, for you will be happier, wiser and healthier. And when we have

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them, so we will, so we will, if—if we do not seek them at all. For the words of Jesus are literally true, "Seek ye first the kingdom of heaven and its righteousness, and all these things will be added unto you." It is literally not worth while to have them,—they will be but vexation of spirit,—until they have come as results of seeking things that are in themselves worth while,—peace and truth and order and aspiration, the approval of the best, for a daily life of patience, moderation, industry, and interest in the welfare of others.

A course of study is essentially a spiritual thing: it is concerned with a man's inner and real life. Between the man who knows such an inner life—who is religious—and the man who cares for the outer life—who is materialistic—there has been and forever will be war. Both men fight within nearly every one of us. In this sense, that teacher is a true interpreter of the course of study, who lives in such fashion and speaks in such language that all men and all children see that he knows upon which side ultimately and of right the battle always goes. For in the dialectic of history, the nation of ideas, the religious people always wins fairly enough to transmit its ideas to the civilization that lies ahead. And in the dialectic of individual lives, the final victory, the ultimate triumph necessarily rests with that man in us who knows that "the price of wisdom is above rubies" and therefore gets wisdom as the principal thing to be had of life.

“A certain order, then, proper to each, becoming inherent in each, makes each thing good.”—PLATO, *Gorgias*, § 133. 380 B.C.



## CHAPTER V

### THE DAY'S WORK—ITS PLAN AND RECORD

The variety of duties.—Frictions.—Daily preparation.—Daily programs in a graded elementary school.—High school programs.—Advance plans *versus* records of accomplishment.—A new class.

THERE is a deal of difference in the kind and in the quality of the work that different teachers must perform every day of their lives. One teacher has twenty small children for three or four hours a day. Another has half a thousand in the course of a week, holding with them in class sessions of half an hour each for two or three times during the week but teaching each day six or seven hours. I have seen even greater extremes.

One teacher meets his pupils in a log-cabin with log-furniture; another meets his in a pressed-brick palace with the latest adjustable desks for furniture.

One high school may have seventy-five teachers for seven hundred and fifty pupils, while another has but thirty-five for eleven hundred pupils.

These instances suffice to show that in the conditions and circumstances of their work, teachers differ too much to make closely prescriptive directions profitable.

But regarding all teachers a few facts may be assumed.

Of these, the first is that whatever be the number or

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grade of their pupils, and whatever the conditions and surroundings of their work, the teacher has all that he can do. For this, there are two reasons: First, the employers of teachers are seldom so careless of the extent of the duties of their employes as to allow them a relaxing and disintegrating amount of leisure. Second, it requires but two or three boys or girls to open up opportunities for thought, endeavor and anxiety enough to keep an intelligent adult constantly busy in caring for them. The average American city school teacher has for employers principal, supervisors, superintendent, board of education members, perhaps other public governing officers, taxpayers, citizens and parents and as a class some forty pupils. The case of the American district school teacher is different but not easier. Likewise, the teacher in the parochial or other private school is working under conditions that tax strength and ability to their limits.

A second fact that may be assumed is that a large amount of the hard work that the average teacher performs daily is the result of friction in relation to the task. Every change that reduces the friction eases the amount of hard work.

To illustrate:—It is easier to work under an agreeable but not omnipresent principal than to work under other kinds. It is easier to work in a well-lighted, well-ventilated, properly heated, large, clean, commodious room than in one that fails in these particulars. Of all the advantages and qualifications that a teacher can have for his daily task, these are the greatest:—1st, adequate financial return; 2d, security of tenure; 3d, health; 4th, strength; 5th, general intellectual preparation for teaching; and 6th, adequate daily preparation before entering the class-room. These advantages



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are of extremely complicated relationships with one another. The teacher who lasts in teaching twenty-five years is entirely familiar with these relationships. Yet not more than one of them has been measurably within his or her personal control—the last. Most teachers can in a degree control the extent of the daily preparation of their lessons. There are no successful teachers of twenty-five years' experience who have not felt some interest constantly in, and have not given some time regularly to, the daily preparation of the class lessons. The degree in which a teacher prepares his daily lessons depends in part upon his health and strength, in part upon the number of hours given to actual teaching, but in the main to his own conception of the importance of the teaching function. One who cares about the lessons next to be given thinks about them when going to school and at many other apparently care-free times of the day. The extent of the teacher's daily preparation is less within his control; and yet even the teacher whose school lasts seven or eight hours a day can usually get one or two hours for preparation, when he so wills, desires, and intends.

A third fact may be assumed as true of all teachers,—they teach because they are interested in the work. There are some exceptions, perhaps a considerable proportion among the older teachers; but taking the entire half million men and women, one can find no other profession with so small a number relatively who work neither for money nor for fame, neither for livelihood nor for respectable employment. To teach is a very natural human function, requiring but little stimulus for its awakening in most hearts. Because of this fact that most teachers enjoy doing the work, they are usually ready and indeed in many instances eager for suggestions. Most of the exceptions are in those cities

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where they have been badly managed by disloyal boards of education or by incompetent and perhaps tyrannical superintendents.

From these facts, it follows, first, that to ease the work in their class-rooms, teachers should prepare themselves immediately and in detail before entering upon the day's duties; second, to go on improving year after year and to be happy in their work, they should make such daily preparation; and, third, that making such preparation is evidence of fitness for and happiness in teaching. And the corresponding negatives are all true:—not to prepare each day's lessons properly is to make the day's work hard; not to prepare them regularly year after year—to live by the old note-books—is to insure both intellectual stagnation or worse, and also esthetic distaste for the tasks of education; and not to prepare is evidence of unfitness for, and unhappiness in, the work. What and whom we love, we labor for and gladly serve. Thereby, we grow.

In preparation for the day's duties, the first move is to make a general daily program. When that is already provided by others in authority, the first move is to make the special daily program.

The principles that should govern the making of the daily program are as follows—*viz.*:

1. Before school, get materials ready, see individual pupils, confer with school heads and colleagues.

2. By morning exercises in music, ethical lesson, story-telling, and literary or elocutionary class or individual features, bring the pupils into harmony with the school atmosphere.

3. Because we have many fatigue rhythms or natural

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bodily periodicities, the child under ten should seldom be held to lessons over 15-20 minutes in length;

4. And the hardest work should come earliest in the morning.

5. Hard and easy subjects should alternate.

6. Such exercises as spelling, writing, and calisthenics should not be over ten minutes in length because of special difficulties,—respectively, confusion of ideas, special muscular fatigue, and widely extended physical excitation.

7. Children need a mid-morning, spontaneous, care-free period, best secured by a recess not too long nor too closely supervised.

8. End each session with study period or manual work.

9. Where the curriculum is crowded, teach informational studies and physiological or psychological exercises but two or three days each week, using one program for Monday, Wednesday, and Friday and another for Tuesday and Thursday.

10. Teach a subject always at the same hour of the day, if at all. Expectation and functioning depend upon regular periodical rhythms.

11. Since teachers differ in psychical rate and otherwise, they should have freedom within limits to lengthen or shorten the periods devoted to the various subjects.

12. The easiest lessons should be assigned for Mondays and Fridays.

GENERAL NOTE.—For a discussion as to whether or not to divide a third-year class into two sections (say) A and B, or 1st and 2d, see Chapter VII following. When two sections or three or four groups are formed, it becomes requisite to prepare the special day's program in much detail.

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## I. THIRD YEAR AT SCHOOL

GENERAL DAILY PROGRAM		SPECIAL DAY'S PROGRAM, OCT. 1
A.M.		
9.00- 9.15	Morning exercises	St. Luke vi : 27-38 (1)
9.15- 9.35	Arithmetic	"9" Table, written problems (2)
9.35- 9.50	Writing	<i>mnmnmn</i>
9.50-10.10	Nature-study <sup>1</sup>	Squirrels
A.M.		
10.10-10.30	Language	Statements about autumn
10.30-10.45	Recess <sup>2</sup>	
10.45-11.05	Reading	H——'s Third, p. 18
11.05-11.15	Spelling	(3)
11.15-11.45	Manual work	Finish raffia basket
P.M.		
1.15- 1.30	Musie	New rote song: "Dance of the Leaves"
1.30- 1.45	Oral arithmetic	Fund. operns. sm. numbers
1.45- 1.55	Calisthenics	Supervisor's day
1.55- 2.05	Memory selection	Bryant's "A Forest Hymn," 5 lines (4)
2.05- 2.15	Recess	
2.15- 2.35	Drawing	Squirrels (5)
2.35- 3.00	Study	Help S. G. with arithmetic (6)

<sup>1</sup> Preferably each class-room, certainly each school-house should have a Nature library, with well-illustrated books. There should also be a museum, however small at the beginning. Some of the books and materials should be for the teacher, but most of them should be selected for the uses of the pupils themselves. There should also be lantern slides and stereoscope views. Often, the teacher can have none of these aids; more often, he or she is unwilling to make a small beginning.

Of course, the kind of lesson that the teacher is to give about the squirrel will depend partly upon whether he or she and the pupils already know anything by observation about squirrels. Many Nature lessons are absurd because they assume that the pupils know nothing whatever about the things discussed, when in fact they know much. Other lessons are scarcely less absurd because the teachers assume that the children know something about their topics but in reality know nothing.

<sup>2</sup> In a graded school, probably each teacher will be assigned to

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LESSON NOTES.—(1) Talk about true kindness. Song, page 3. Have Dorothy recite from Lowell's "Vision of Sir Launfal." Discuss specific acts of kindness with children.

(2) Set of problems such as this:—"Isabel picked some cherries and gave Catherine, Marie, and Susan each nine. She had nine left herself. How many did she pick in all?" Work out  $9 \times 5$  dramatically with five groups of nine children each, and with nine groups of five children each. Work by squares, etc., on blackboard,  $9 \times 10$ . (See Appendix V, Dramatic Number Lesson.)

(3) New words,—tax, taxes, since. Review,—ever, fail, world, hire.

(4) "Oh, there is not lost  
One of earth's charms: upon her bosom yet,  
After the flight of untold centuries,  
The freshness of her far beginning lies,  
And yet shall lie."

Bring out the rhythmic beauty of the passage. Tell children how old the earth is. Tell them that it seems new to each new little child. Explain meaning of "charm," "flight," "centuries," and any word about which inquiry is made.

(5) Make paper cuttings of squirrels in characteristic poses. Put on blackboard drawing. Have six children do same.

(6) Help J. T. with his articulation of "s." Ask M. P. D. why she doesn't bring her home work.

recess duty for a day once in every week or every fortnight. It is usually preferable to have the recesses separate for the older and the younger pupils. Even three or four divisions of a large school may be desirable. Unless there is a special physical culture teacher who teaches games and plays for recess, there should be instruction and direction by the principal and class teachers in recess play and manners. Some of the lessons may be given in the class-rooms. There are now several good practical books on the subject.

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## II. EIGHTH YEAR AT SCHOOL

*Teacher has several subjects in each of two classes.*

GENERAL DAILY PROGRAM A.M.		PUPILS FROM	SPECIAL DAY'S PROGRAM, JUNE 15
9.00- 9.15	Morning exercises	Room 18	Psalm xv (1)
9.15- 9.45	Arithmetic	Room 18	Class test:—percent- age and interest (2)
9.45-10.15	Arithmetic	Room 19	Class test:—percent- age and interest (2)
10.15-10.30	Recess		See note <sup>1</sup> , p. 124, pre- ceding
10.30-11.00	Geography	Room 19	Review Asia R. & H. (3)
11.00-11.15	Music	Room 19	Key of E (4)
11.15-11.45	Geography	Room 18	Asia
P.M.			
1.15- 1.45	History	Room 18	C——'s, pp. 401-410 (5)
1.45- 1.55	Music	Room 19	E
1.55- 2.10	Writing	Room 19	O C Q (6)
2.10- 2.20	Recess		
2.20- 2.50	History	Room 19	401-410
2.50- 3.00	Calisthenics	Room 18	Wands (7)
3.00- 3.15	Writing	Room 18	O C Q
3.15- 3.30	Study	Room 18	Go over to-morrow's geography (8)

(1) Explain promises, contracts, agreements. Songs, pages 44, 89. Declamation by William S., "Horatius." Discuss recent change in protection tariff.

(2) Test paper, five problems such as the following:—B had \$600 and put it in a savings-bank for three years at 4 per cent. compound interest semiannually. R had the same amount but loaned it out at 6 per cent. simple interest for three years. What amounts of interest did each receive at close of this period?

(3) Compare carefully relative areas and populations of all the important countries. Draw sketch maps of Arabia, India, China, Japan Islands.

(4) Review one-flat, two-flat, three-flat scales. Explain relation of C key to E key. Call attention to the melan-

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choly effect of the flats, and why. Compare with sharps, and why. Illustrate. Group children to illustrate.

(5) Explain reconstruction policy of Republican party as partly caused by revenge for Lincoln's death, partly from hatred of victors for vanquished, partly by sheer ignorance of the character of the freedmen, partly by rise in North of unworthy men and of new men to high office, and partly as no policy at all but haphazard action. Show damage done to South by the Reconstruction Acts. Johnson was irascible and unsufficiently informed, Grant a soldier-engineer, not a statesman or a politician. Neither understood human nature thoroughly and broadly.

(6) Work over the swing both from right to left and from left to right; and then proceed to capitals. Use both blackboard and pen-and-ink exercises.

(7) Work for shoulder-straightening: use sixteen full overhead swings of wands.

(8) Show children what study is. Take first paragraph, page 272. Discuss words: general meaning of sentences: special meanings: recall similar truths learned earlier. Compare Ganges with Danube and Susquehanna. Help J. T.; McL.; Hester, to read. They don't read yet.

### III. JUNIOR AND SENIOR SCIENCES IN HIGH SCHOOL

GENERAL DAILY PROGRAM		PUPILS FROM	SPECIAL MONDAY PROGRAM, SEPT. 24
A.M.			
9.00- 9.20	Chapel exercises		
9.20-10.05	Senior chemistry	Room 12	Purify sea salt (1)
10.05-10.45	Senior chemistry	Room 26	Determine some impurities (2)
10.45-11.00	Recess		
11.00-11.40	Junior physics	Room 9	Pendulum (3)
11.40-12.20	Junior physics	Room 10	Pendulum (3)
12.20-12.50	Noon intermission		
12.50- 1.30	Free time		
P.M.			
1.30- 2.10	Geology	Room 25	Chronology by eras (4)
2.10- 2.30	Charge study hall		

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GENERAL NOTE.—The special teacher in the high school, like the college professor, seldom fails in the same way to prepare himself daily as does the general elementary school grade-and-class teacher. The high school expert is apt to take large enough views but not apt to complete the detail preparation. Often, he sets out to give lessons that are too long and above the knowledge and powers of his pupils.

LESSON NOTES.—(1) This lesson will require several days for accomplishment. Notes on “salts,” iodine, organic matter, etc.

(2) Assumes that Room 26 has proceeded a little faster than Room 12.

(3) Show clocks with weights and with springs. Time and measure the 60-beat to the minute pendulum; the 30-beat; the 120-beat. Derive the law. Show how immaterial the weight of pendulum is, provided heavy enough to acquire momentum and to preserve inertia. Draw arcs of these pendulums.

(4) Etymology “zoic” and other parts of the terms “eozoic,” “paleozoic,” etc. Make drawing to show earth's crust. On map show oldest and youngest surfaces on North American Continent. Define “rock.” Assign and explain advance lesson, pages 15–20. G——'s Geology. Call up each pupil on cards for one question at least. Give references to encyclopedias, dictionaries, etc.

It may be perhaps objected that the competent teacher can remember all these points without writing them down. In many instances, this is true. No superintendent or principal is likely to insist that the teacher who can remember his special day's program shall write it down. But every good superintendent and every good principal does insist that before going into class, the teacher shall have clearly in mind all the work that he hopes to accomplish in that period with that class.



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Those who can certainly remember just what they have proposed to do are better off without notes than with them. But such persons need constantly to guard themselves against the spirit of improvisation, lest, in the presence of the class, they depart widely from, even hopelessly of return to, the proposed line of instruction. Now and then, a complete abandonment of the proposed lesson is commendable; but inventive and resourceful teachers who think that they do not need written notes are apt to carry the pupils at a jump into regions essentially incomprehensible to them. When the abandonment is of an advance lesson in favor of some review unexpectedly discovered as being needed, serious harm is not likely to result.

In truth, the predicaments at end-of-term time of the two kinds of teachers who do not use prepared lesson plans are apt to be serious. Those of one kind are too indifferent to make such preparation, but live in self-confidence not merely from hour-to-hour without foresight but actually from minute-to-minute trusting to "inspiration" and to the suggestions of events and opportunities. Those of the other kind are often without sufficient imagination to conceive of the class and recitation save in the actual presence of necessity. The teacher who trusts his or her mother wits may be brilliant but is not likely to be thorough or complete. For want of method and of carefully considered devices, he loses much time and often the sight of the true goal. The teacher who dully waits to see what the turn of affairs will be seldom arrives anywhere, seldom goes at all. The brilliant teacher is redeemable: the dull, unimaginative teacher is incurable.

It is, of course, true that no one can foresee exactly

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what a day is to bring forth,—of work, of need, of opportunity. For days, for weeks, for months, a teacher may see each day's plan fairly realized; then may come days, weeks, months, when things go differently, even go wrong. A parent or several parents, a supervisor, a politician, a bad boy or girl or both or several, a new text-book that will not "work,"—that does not serve the needs properly,—a shortage of books or supplies, bad weather, ill-health, misfortune, an unpleasant person in a neighboring class-room, an excess of laggard pupils, an insufficient proportion of stimulating pupils, want of authority in the head of the school, weak new teachers—any one or more of a thousand factors may suddenly or slowly intervene to break up a hitherto delightful relation between plan and fulfilment.

The making of a good program for a district school, taught by one teacher with a large number of pupils, is one of the difficult mechanical tasks of pedagogy. It involves many conflicts of sound educational principles and of the interests of individual pupils. I have seen a teacher in such a school with sixty children ten grades apart,—beginners too small to learn to read and advanced pupils taking Latin, physics and geometry. Attempts have been made to standardize the "district school" into three "forms" or "cycles"; and this perhaps fits the general need more frequently than does any other. But of three-form eight-graded schools, one with twenty pupils averaging twelve years of age is one thing; and another with sixty averaging nine years of age is quite another. The fluctuations from summer to winter and again to spring present yet other difficulties. A few principles may, however, prove generally applicable: a few others may be occasionally helpful.

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1. Make the number of classes for recitation purposes as small as possible.
2. Put as many pupils into each recitation class as is reasonably defensible.
3. Make each recitation period as long as possible.
4. Work as many classes together in one subject at the same time as possible, either hearing all recite together or hearing one recite while directing others in the same study.
5. Do not try to have the same subjects invariably every day.
6. Keep an eye always for the classes not reciting and see that they have study-lessons or "busy work" in their seats.
7. If possible, let each class recite at least once in every hour.
8. Let no class have less than three recitations, however brief, each day.
9. Provide for abundance of written work.
10. Keep at least one day each week and an extra day each month relatively free to help backward classes and pupils,—to "pick up dropped stitches."
11. In large schools, requiring four "forms," it may prove helpful to let older pupils assist considerably, not in teaching or in discipline, of course, but to give recess signals, to follow the movements of smaller pupils, to assist in handling materials, and in other ways to help economize the time of the teacher.
12. In such schools, keep making time for and progress in arithmetic and English, whatever else must be set aside.
13. Always have morning exercises,—music, some ethical lesson, general directions, memory gem or other literary feature by class or individual, story-telling,—and, if possible, have "something special" for part of Friday afternoon.
14. In large schools, make three programs,—one for Mon-

## CLASS TEACHING AND MANAGEMENT

## FOR THREE FORMS (OR CYCLES OR CLASSES)

(or) Lower, Middle, Upper

## TUESDAY—THURSDAY

PERIOD BEGINS 9.00 A. M.	MORNING EXERCISES			3D FORM 2D FORM 1ST FORM	MORNING EXERCISES	2D FORM 1ST FORM	PERIOD ENDS 9.00 A. M.
	3D FORM	2D FORM	1ST FORM				
9.10	ARITH. (num.) <i>Study</i> Recitation	ARITH. (oral) Recitation <i>Study</i>	ARITHMETIC <i>Study</i> <i>Study</i> Recitation	ARITHMETIC Same as M. W. F.	ARITHMETIC Same as M. W. F.	ARITHMETIC Same as M. W. F.	9.10
9.20	ENG. (reading) <i>Study</i> Recitation	ENG. (reading) <i>Study</i> <i>Study</i> Recitation	ENG. (language) <i>Study</i> <i>Study</i> Recitation	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	9.20
9.30	ENG. (phonics) <i>Study</i> Recitation	ENG. (language) <i>Study</i> Dictation	ENG. (spelling) <i>Study</i>	ENGLISH Same as M. W. F.	DRAWING	ENGLISH Same as M. W. F.	9.30
9.40	ENG. (spelling) <i>Study</i> Recitation	RECESS	RECESS	ENGLISH Same as M. W. F.	RECESS	ENGLISH Same as M. W. F.	9.40
9.50	NATURE <i>Study</i> Recitation <i>Study</i>	RECESS	RECESS	CONSTRUCTION or other manual activities	ARITH. (written) <i>Study</i> Recitation	DRAWING	9.50
10.00	DRAWING	ENG. (spelling) <i>Study</i> Recitation	ENG. (spelling) Recitation	DRAWING Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	10.00
10.10	ENGLISH (handwriting) Blackboard writing	ENG. (language) Recitation <i>Study</i>	U. S. HISTORY <i>Study</i> <i>Study</i> Recitation	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	10.10
10.20	MORNING DISMISSAL	ENGLISH (handwriting)		MORNING DISMISSAL	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	10.20
10.30				CONSTRUCTION or other manual activities	ARITH. (written) <i>Study</i> Recitation	DRAWING	10.30
10.40				DRAWING Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH AND GENERAL HISTORY	10.40
10.50				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	10.50
11.00				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	11.00
11.10				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	11.10
11.20				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	11.20
11.30				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	11.30
11.40				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	11.40
11.50				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	11.50
12.00				ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	ENGLISH Same as M. W. F.	12.00

# THE DAY'S WORK—ITS PLAN AND RECORD

1 00 P.M.	ENG. (language) Story-telling Story-writing	GEOGRAPHY <i>Study</i> <i>Study</i> Recitation	GEOGRAPHY <i>Study</i> Recitation <i>Study</i>	ENGLISH Same as M. W. F.	GEOGRAPHY Same as M. W. F.	GEOGRAPHY Same as M. W. F.	1 00 P.M.
1 10							1 10
1 20				ENGLISH Same as M.W.F.			1 20
1 30							1 30
1 40							1 40
1 50	ENG. (language) Dictation <i>Study</i>	AGRICULTURE Exercise <i>Study</i> or Recitation	AGRICULTURE <i>Study</i> Recitation or Exercise	ENGLISH Same as M. W. F.	CONSTRUCTION or other manual activities		1 50
2 00							2 00
2 10	RECESS			RECESS			2 10
2 20	GAMES & PLAYS		RECESS	GAMES & PLAYS	RECESS		2 20
2 30	General <i>study</i> and individual help by the teacher		GAMES AND PLAYS	<i>Study</i> Same as M. W. F.	GAMES AND PLAYS		2 30
2 40		HISTORY, stories <i>Study</i> Recitation	ENG. (reading) <i>Study</i> Recitation		PHYSIOLOGY AND HYGIENE		2 40
2 50	AFTERNOON DISMISSAL	General <i>study</i> and individual help by the teacher	ENG. (grammar) <i>Study</i> Recitation	AFTERNOON DISMISSAL	Same as M. W. F.	ENGLISH (Grammar) Tuesday (Rhetoricals) Friday	2 50
3 00							3 00
3 10		AFTERNOON DISMISSAL	General <i>study</i> and individual help by the teacher		Same as M. W. F.		3 10
3 20							3 20
3 30					AFTERNOON DISMISSAL	<i>Study</i> Same as M. W. F.	3 30
3 40							3 40
3 50						Close of School	3 50
4 00							4 00

## CLASS TEACHING AND MANAGEMENT

day and Wednesday, another for Tuesday and Thursday, and a third for Friday. (Upon occasion, the teacher may say,—“Now for to-morrow, though it is Monday[or Wednesday] we will have our Tuesday [or Friday] program. But so far as is possible, let each subject come at the same hour each day that you have it.

15. Do not neglect the beginners or indeed any children under nine years old. Get them well started.

16. As soon as possible after “sizing up the situation” and discovering how much and how little can probably be done, come to a clear understanding with the next higher school authority whether township or county superintendent or local board of education or visitors or trustees or State supervisor—by whatever name that authority is called or in whatever office he is (or they are)—as to just what you propose to accomplish. This avoids possible later misunderstandings. Do this, no matter how ignorant or how “political” that authority may be.

Often district school teachers with large schools become discouraged; and sometimes those in small schools become equally discouraged. The first may have too much to do. “Blessed are your eyes, for you see, and your ears, for you hear.” The second may feel that they have too little to do. Yours then is the opportunity to do much for each child, and to master both the subject-matter and the pedagogy of such a school.

To help the teacher remain true to his course, nothing serves better than a record of the past. The teacher who makes regularly a plan of the day's work and keeps a file of these plans scarcely needs the annalistic diary or similar note-book or file-record. But all other teachers do need the historical record. Especially do experienced teachers require a record of the class-

## THE DAY'S WORK—ITS PLAN AND RECORD

accomplishment. The human memory plays two tricks with those who for the fourth or the tenth or the thirtieth time are going over the same subject. It makes one fill the recent past with details belonging to an earlier time. The teacher thinks that he has taught so-and-so when he really has not taught it. And the other trick of memory is yet worse: it creates an illusory past so that one thinks that the world is getting worse,—that the children of the year 1911 are not doing so well as those of the year 1910 or 1901, or 1891 or 1876. The note-book tells the truth. It helps the cause of justice.

The judiciary understand this and will believe even an untruthful man's diary rather than a truthful man's memory. This is not due to the decadence of human memory in civilization but to the world-old activity of imagination and of fancy, which are forever reconstructing past events in the desire to understand them better and realistically to renew their pleasures. Men do not often record falsehoods in writing: their invincible and necessary optimism creates falsehoods out of facts by suppression usually of partial features of the facts.

Such is the nature of some persons that they prefer to record the day's accomplishment rather than to write down its plan in advance. Those who do this in school work are usually good reviewers and drill-masters. When for want of a plan, in an emergency in a recitation, they do not know what next to do for progress in the subject, they resort to review or to drill; in some grades, unless these reviews are too frequent, in some subjects in any grade, they do but little harm. Any logical subject whether arithmetic or political economy or metaphysics

## CLASS TEACHING AND MANAGEMENT

will bear an immense amount of drill upon its essentials and fundamentals. But such unintended reviews and drills produce weariness of the pupils in the informational or so-called "content" studies; nor are they expedient when often repeated in the psychological and physiological exercises. The soldier who has been drilled for twenty years in the manual of arms cannot find his place in ordinary society. His mind and his body are victimized by routine; he is overtrained, literally has been "drawn along,"—instructed, literally "pulled in"—too often. The experienced draughtsman cannot become an architect. He sees the world too narrowly; his fancy is dead.

There is such a thing as "overschooling". It is the result of being reviewed and drilled and tested and trained and instructed too much and too long by these very teachers who, being without imagination or invention, without scholarship and aspiration, drill when they should be teaching.

Back of the movement to enrich all schools is the protest of half-nourished, overtrained, too much disciplined men and women whose schooling was regimentation, not education.

In making a record that shall be valuable, the teacher who intends to know three months, six months, ten years afterward, in truth just what his class did accomplish needs especially to record such matters as (1) the pages of the various text-books assigned from day to day both for advance lessons and for reviews; (2) the important topics actually discussed; and (3) the marks given to pupils; and should file (4) the tests, reviews and examinations given. It is not useless sometimes to have on hand specimen papers (say) two very good



## THE DAY'S WORK—ITS PLAN AND RECORD

ones, two average and two poor ones from term to term and from year to year.<sup>1</sup>

In making either plan or record, we are likely to find some kind of card or loose leaf system better than entry in books and far better than filing loose papers of irregular size.

This general subject of each day's work is too intimately connected with the larger subject of the assignment for the month, for the term and for the year, to be closed without some reference to the whole of which the day's work is but a part.

Two plans prevail for beginning a new grade's work whether it be after annual promotion or semiannual. One is to take a week or two at the beginning to review the work of the class in the earlier grade. To this, there is one serious objection,—it tends to discourage the pupils, making the brighter ones feel and say that the promotion did not mean anything because they are "doing the same old lessons." This usually leads to parental criticism of the teachers and sometimes to protests to higher authorities.

The other plan is to plunge at once into new work, making no or but little inquiry into the question as to how much of the former work the pupils remember and can do. This always makes trouble in the logical or "form" studies.

<sup>1</sup> I have always been sorry that I did not keep the names and addresses of every pupil that I myself have had as a teacher in my various academic college and university classes. There have been several times in my life when such records would have been helpful to me. In all such matters there is, of course, a golden mean; but most of us err, at least in our early years, in not providing records against the time when, from sheer burden of the items of experience, we forget, or appear to forget, many of them.

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The true solution of the matter is, by doing both, to do neither exclusively. There should be enough advance work especially in the informational studies to make the pupils know and feel that they are really going forward, while there should be enough review in all other studies and in the physiological and psychological exercises to assure the teacher that the foundations are sound. In truth, the advanced teacher needs more to know what the pupils know and can do well than what they do not know and cannot do well, for our assets are our knowledge and skill, not our ignorance and our deficiencies. The ingenious teacher, indeed, will do much reviewing that his pupils do not suspect.

Yet more important, as affecting a longer period of time, is it for the school authorities, who in this instance should certainly include the practical class teachers, so to apportion the amounts of advance work required each month, week and day that each day's lesson is about equally hard and long to accomplish as is every other day's. This means that the first lessons should apparently be the shortest, and that the tests and reviews should be fairly apportioned. Because a half year contains about one hundred days, it does not follow that each day the class in history should cover one-hundredth of the entire assignment of the text-book. In a general way, the longer lessons should be toward the end of the term, provided that the more difficult pages have more time allotted to them than the easier. In a general way, the reviews should be more frequent in the logical than in the informational studies. To be specific, a class that is to do four Books of *Cæsar's Commentaries* and some reading at sight (say) in Sallust should not be expected to read more than one-tenth of

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the material in the first quarter of the year. A class that must perform one hundred and twelve experiments in Physics does well to perform about half a dozen in the first four weeks. This is not "rushing things at the end"; it is using at the end the momentum acquired earlier.

In a general way, drills, tests, and reviews should occupy a quarter of the entire time in informational studies, and half the time in the logical. These proportions are, however, too small for primary grades and too large for secondary schools; and fairly represent only the needs of middle grammar grades with classes of ordinary powers and proficiencies. Even this principle requires modification to suit the special qualities of the teacher. Rapid teachers need to review more than do slower ones. Brilliant classes need more frequent and more thorough reviews than do slower, safer classes.

Far more minds are injured by insufficient drills and reviews than by too many. At the same time, it is requisite to remember that reviews, drills and tests must not be so frequent or so severe as to worry and dishearten the pupils. Young minds like the new. Wherefore that teacher who in every review yet adds a little that is new and who in every advance lesson does some reviewing is ingenious, meritorious and probably popular with his pupils.

When all else has been said, these things remain:—

First, the teacher, and not the "higher authority," does the educating except in so far as principal or supervisor comes directly into the pupil's life.

Second, it is the day's work that tells the story of success or failure, not the term's or year's plan or the summer vacation's aspiration.

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Third, it is the spirit of the teacher in the day's work that wins for himself and for his pupils victory or defeat, the good courage or a sense of failure.

And in respect to this essential matter of the heart of the teacher in the work from day to day, there is a little self-criticism that often helps a deal; it is as little as the deflection of the rudder that sends the ship about; and yet it is as effective. No teacher has any right to a personal mood that is not in harmony with the eager and hopeful lives of youth,—no teacher whether in kindergarten, grammar school, college or university. There may be terribly hard things to endure, and there often are. The teacher who cannot control his grief, whatever be its cause, or his wrath or his discouragements, his timidity or envy or other abnormal mood, should take a vacation, whether for a day or a year or ever after; at such times, he does not belong in the school-room. This is not meant to read out of their tasks the cheerful invalid or the brave man or woman in the day of affliction or trouble. There are some who overcome and who have entered into an inheritance of peace. Widows, daughters of bankrupt fathers, men who have failed in business or in other professions often make the best of teachers because they have learned more of the meaning of life than the uniformly fortunate can ever know. Even children have an especial respect for these redeemed ones,—there is much personal dignity in such as are reconciled to whatever fate befalls. We may know them by a certain calm and by a certain silence in respect to matters of which some talk lightly and others violently.

The teacher, setting his face or her face toward the school-house or a college lecture-hall of a morning, should

## THE DAY'S WORK—ITS PLAN AND RECORD

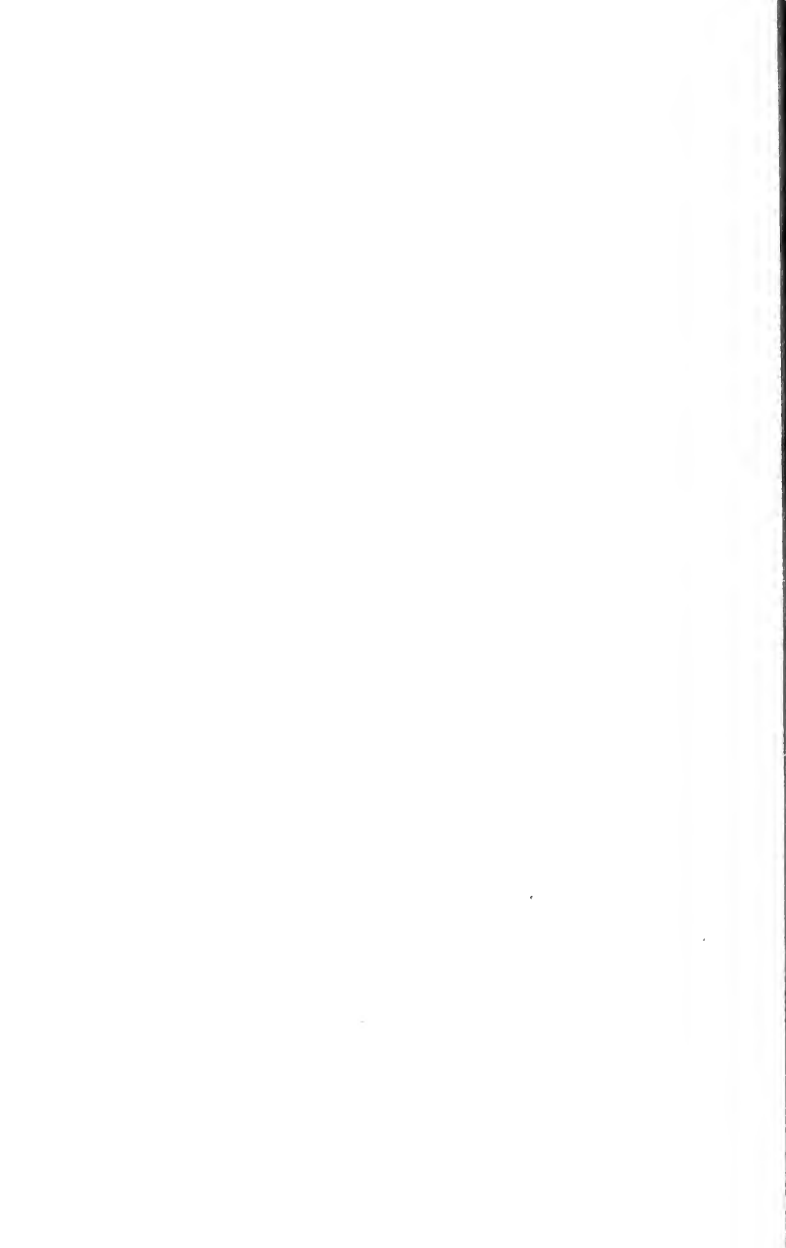
go gladly, for there at least are eager and grateful listeners—with futures yet to be won, with strength not yet overtried, with hope and faith and love at least for the teacher in their hearts. Especially should we who deal with children remember that it is our high and special privilege to deal for livelihood not with adults who have usually broken one or more of the ten commandments but with those little ones of the kingdom of heaven like whom adults must again become, if we also would enter into that kingdom. It may indeed be that by good teaching and by an equally good example, some at least of these children will always at heart remain throughout life superior to all temptations, submission to which is exile from that kingdom.

The day's work of the teacher is, upon final analysis, the reflection of what the teacher himself is. Among children, fair speech and other concealments avail but little; they are the readers of character, not being deceived by their own self-interest or by fear, being indeed deceived only in respect to matters beyond their comprehension—and even then catching, as it were instinctively, the moods of hatred or of good-will toward men.

For the teacher when proceeding to the daily tasks, no motto is more fitting than the saying of the herald angels,—“Peace on earth, good-will toward men.”



“Skilful teachers make instruction in all subjects moral—by arousing a pure desire for truth, a spirit of intellectual honesty, a will to work and to overcome difficulties, and a long line of modest, every-day virtues.”—ELMER ELLSWORTH BROWN, *The Making of Our Middle Schools*.





## CHAPTER VI

### CONTROL OF THE CLASS AND OF THE INDIVIDUAL

Review of terms used in education.—The force-theory.—The skill-theory.—School-and-home theory.—Pupil self-government theory.—Manual work in relation to discipline.—Virtue is at the point of strain.—Moral aims in education.—Means to attain them.—When is corporal punishment necessary?—Seating a class so as to avoid unnecessary conditions leading to disorder.—Directing the movements of the class.—Fire-drills.—The mechanics of class control.—Learning each pupil.—Physical defects.—Schools and classes for the incorrigible, for the defective, for the laggard, for the blind, for the deaf, for the crippled.—Tests of feeble-mindedness.—The reasonable standards of conduct in children and youth.—The school virtues.

**I**N education, we use many more or less technical words, and often with but little accuracy. In no phase of the work of education do we use words with less accuracy than in that of the control of the class and the discipline of the individual. Before proceeding to a discussion of this phase of education, it is more than desirable,—for it is both expedient and necessary,—to consider with care and thoroughness the terms to be employed. It is doubtless best to take the situation into wide review.

To “educate” means to “make to come forth” or to “cause to go forward.” In this sense, all education is compulsory. Strictly speaking, no one may properly use the term “spontaneous education,” for it is a contradiction in terms. “The educator makes states of

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consciousness that are not accidental or incidental or occasional but purposive and usually systematic and always either consecutive or in regular alternation.”<sup>1</sup> Thereby, he effects changes in the course of the development of the soul and of the body of the educatee: he compels him to be different.

To “instruct” is to “draw in.” Naturally, the pupil wanders from the highway of learning, from the method by which he should enter into knowledge. As the shepherd with his crook goes after the lost sheep in the wilderness to pull and guide and even to carry him back, so the educator instructs the lost youth. He sets him again upon the beaten track that the righteous and wise have followed.

To “train” is to “draw,” even to “drag along.” It concerns especially the lazy and the weak.

To “teach,” as we have seen, is to “show”; and to “learn” is to “go forward” by a “method” or “highway.”

To “direct” is to “point right”—to mark the goal.

To “correct” is to “set right,” and implies that the corrected individual is going wrong.

To “punish” is to “inflict a penalty upon”; and to “chastise” is to “make clean” or “pure.”

To “study” is to “agonize over.”

To “exercise” is to “shine forth.”

To “control” is to “draw with.”

To “govern” is to “pilot” or “guide.”

To “manage” is to “work in the hand,” as one kneads flour and water and makes dough; or to “do by hand,” meaning to “finish carefully.” It always conveys the idea of care as to details.

<sup>1</sup> Chancellor, *A Theory of Motives, Ideals and Values in Education*, p. 22.

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To "administer" is to "touch the hand to."

To "supervise" is to "oversee."

To "discipline" is to "treat as a little learner." It is almost the same as to "baby."

A few illustrations may serve to draw out the contrasted meanings of these terms.

Properly speaking, one may say that:

1. In a large city, the school superintendent administers the schools but manages his office affairs.

2. A father directs, corrects and controls his family, while the mother governs and manages the household. In the same sense, a principal should captain the school while the several teachers pilot their own classes.

3. The principal who whips a pupil is punishing him, for whipping is too harsh a chastisement to be designated properly by the term disciplining.

In such light as may be derived from reflection upon these terms and from review of remarks made in an earlier chapter upon the temperaments of teachers,<sup>1</sup> we may proceed to a consideration of what is, for many teachers, a more serious problem than teaching itself,—class government. There prevail in American schools two different kinds of theory and practice in respect to securing from the class and its individual pupils conformity to "the rules of the school" and to the customs of polite society. These two kinds of school government are in straight opposition to one another with no possible reconciliation or compromise. In addition to these two wide-spread theories and practices, there are two others that have recognition here and there. For con-

<sup>1</sup> Pages 101, 102, above.

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venience, let us designate these four modes of class and pupil control somewhat as follows—*viz.*:

1. The force-theory of school management.
2. The skill-theory of school control.
3. The school-and-home theory.
4. The pupil self-government theory.

Proceeding to a critical examination of each of these theories, let us note briefly and clearly what each theory with its resultant practice means in itself and in comparison with the other theories.

1. According to the force-theory, boys and girls and youth even through high school and into college, in many, perhaps in most, instances, do not desire to conform to the rules of the school and to the customs of polite society or even to the expressed wishes and hopes of their teachers but of deliberate will or of natural depravity are prone to err, even delight in erring; and they must be compelled to obey.

The common mode of such compulsion is corporal pain caused by punishment: this mode is supported by threats of punishment. It is extended into the grades and schools when the pupils are too large to be whipped by the mode of sarcasm and of diatribe—supported by threats of expulsion or of suspension, seldom executed. Under certain unfortunate conditions, to be developed fully later herein, the force-method is absolutely necessary.

2. According to the skill-theory of school control, boys and girls of all ages, in most instances, perhaps in nearly all, go to school desiring to learn. When properly taught, they inquire of their own accord into the rules of the school, the customs of polite society, and

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the wishes and hopes of their teachers in respect both to proficiency and to conduct and set out diligently and constantly to obey and to conform. Relatively but few pupils require any orders; of these few, not one in a hundred needs to be forced by blows to obey, and in the event of disobedience even this less-than-one-in-a-hundred boy can, in good schools, be punished in better fashion than by physical force.

This theory asserts that disorder in a class-room and disobedience in the individual pupil are evidences that the teacher is without skill in teaching. Instead of obliging his pupils to obey, he punishes them for disobedience, which is proof that he cannot control them.

3. The oldest of all these theories and practices of pupil-and-class government is that the school is an auxiliary of the home. Except under orders from parents, no pupil is to be physically punished at school or even detained after school for admonition, but the teacher is to throw back upon the parents the responsibility for his offence and also of the proper penalizing for the offence. This school-and-home theory continues to this day in some old communities of the East and South and in the new communities of the West that have been settled mostly by families of many generations in this country and of the Teutonic stock. It is a theory vigorously advocated by many parents and by some teachers to this day even in communities where one or the other of the main theories is in full control of the situation.

4. The newest of all these theories and practices of school government declares that in any grade an American boy or girl assisted by other boys and girls can not only govern himself but learn much about human so-

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ciety in so doing. It assumes that pupils are little men and women. It even assumes that nearly all men and women can and do so govern themselves as to afford proper and adequate examples to children in self-government.

This pupil self-government theory is worked out elaborately in not a few city and town schools,—especially in the grammar grades and in the high schools,—and for its proper exposition requires far more space than can be given to it in this treatment of a much larger theme that includes it as but one of many features.

Obviously, within each of these theories is a philosophy of human nature, of society, of life. Obviously, the theories cannot all be reconciled. But it will set us forward upon our argument to consider what these several philosophies are. We choose one or another of these philosophies,—express one or another,—when we advocate or adopt (or both advocate and adopt) one or another of these practices.

Within the force-theory and practices of school government is a philosophy that men are essentially animals, that force rules, that but little of our conduct is rational, that therefore “sparing the rod spoils the child,” that better is obedience, though so enforced as to engender hate, than disobedience that leaves the child with contempt for authority, that society is far, far greater than the individual and must overcome him speedily lest he become lawless and injurious.

This view has had the support of some great names in human history. “Of all animals,” argued Plato, “the boy is the most unmanageable, inasmuch as he has the fountain of reason in him not yet regulated; he is the most insidious, sharp-witted, and insubordinate of

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animals. Wherefore, he must be bound with many bridles. One who comes upon him (when transgressing) and does not inflict upon him the punishment that he deserves shall incur the greatest disgrace.”<sup>1</sup> And Comenius said, “He gave no bad definition who declared that man was ‘a tractable animal.’ And indeed it is only by a proper education that he can become a man.”<sup>2</sup> This view, however, presents many philosophical difficulties. If man is essentially an animal, at what stage does he become essentially human? Is the process automatic? If so, of what value is education? If not, can it be that the Maker of man has left individual men at the mercy of their fellows to deliver them or not to deliver them from being essentially animals? It is indeed a childish and crude view, long outgrown alike by metaphysicist and by biologist, and significant to us only because it reappears from time to time in the theories of unscholarly and unscientific writers and upon the lips of ignorant and sometimes angry and disillusioned men.

Behind this view are indeed many instructive lessons and some warnings of human history that will doubtless occur to the readers of these pages.

Within the skill-theory and practise of school control is a philosophy that men are essentially rational, that ideas rule, that but little of our conduct, and that only of the baser kind of human beings and of better men in only their baser moments, is brutish, that using the rod reduces teacher and pupil to a lower than their natural level, that obedience compelled by rod or threat is worse than disobedience, which leaves the child at least without hatred of his superiors, that the individual is

<sup>1</sup> *The Laws*, Book VII.

<sup>2</sup> *The Great Didactic*, Chapter I.

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a fact and society only an abstraction, and that the child whose will has been broken by force is certain to make a worthless or a sullen adult.

Said Immanuel Kant: "Horses and dogs are broken in, and man, too, may be broken in. But it is not enough that children should be merely broken in; it is eminently important that they learn to think. Accordingly, the management of schools should depend entirely upon the judgment of highly enlightened experts."<sup>1</sup> According to Froebel, "a suppressed or perverted good quality,—a good tendency, only repressed, misunderstood or misdirected,—lies originally at the bottom of every shortcoming of man. Hence, the only and the infallible remedy for counteracting any shortcoming or even wickedness is to find the originally good source, the originally good side of the human being that has been repressed, disturbed or misled into the shortcoming, and then to foster, to build up and then properly to guide this good side. Thus the shortcoming or wickedness will at last disappear, although it may involve a hard struggle against habit but not against the original depravity of man; and this is accomplished the more surely and rapidly, for man at heart prefers right to wrong."<sup>2</sup>

For myself, in sailing round many cities, upon many adventures, I may indeed say as one who has known the affections and the virtues, the hatreds and the malice of men that, to my notion, every vice is the result either of some arrest in development or of some perversion of a good quality. It may not be philosophically demonstrable that, as Socrates said, "Knowledge is virtue"; but no man will ever rise higher in his view of the sin of others than in the prayer of

<sup>1</sup> *On Pedagogy.*

<sup>2</sup> *On the Education of Man.*



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Jesus on the cross,—“Father, forgive them, for they know not what they do.”

Behind the view that the true way to deal with conduct is intellectual and compassionate, not moral and vindictive, are many instructive lessons and some warnings of human history.

Within the school-and-home theory of class-and-pupil government is a philosophy that men are essentially domestic and social beings, that love rules, that most of our conduct is emotional and controlled by affections for kin and friends, that the primary social institution is the family and its ministers are the father and the mother, to whom the pupil belongs, that if therefore corporal or other physical punishment is to be used, the father or the mother is to use it, that the question whether or not the boy or girl obeys the teacher is relatively unimportant, provided that he obeys the parent and that the parent duly punishes, reprimands or otherwise corrects the child or youth, that for the boy or the girl the home is the all important social institution, and the school is merely an agency for the home, and that so long as the home does control the boy, he is safely on the way to make a good citizen, churchman, worker, and otherwise fit member of adult society. “I wanted to prove,” wrote Pestalozzi, “by my experiment that if public education is to have any real value, it must imitate the methods that make the merit of domestic education.”<sup>1</sup>

This view also has much warrant in history,—and yet is not universally true.

Within the pupil self-government theory is a philosophy that justice is quite as discernible and quite as

<sup>1</sup> *On the Work at Stanz.*

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authoritative among children and youth as among adults; that the true preparation for life as a democratic self-governed man or woman consists in a democratic school life. This theory asserts that boys and girls in a modern American school are quite as fit as are most voters and office-holders to make and to execute laws. Speaking practically, the men and women who as teachers establish self-government plans in their schools say that just as adult society sets up in the State as judges and in the Church as bishops learned and wise and well-matured men, so the school sets up the teachers as the final court of appeal,—the forum of last resort,—in the pupil self-government scheme of social organization and operation. Let the boys and girls err, if they must, upon some occasions; they are getting the best of educations thereby. The one way to learn judgment and righteousness, to care for truth and for order and the other social virtues, is to exercise these qualities in school. The boy, who is told what is right and railroaded therein by either force or persuasion, becomes the dependent man. Self-reliance must begin as early in life as the power to choose one's course and to persist therein begins.

This is a new, a generally non-historical, a brilliantly philosophical view, yet one not without confirmation at least in some instances in the experience of the race.

Before passing in detail upon these theories and practises, it is expedient to note a few statistical facts.

First: The force-theory still prevails in over forty States of the Union and in most towns and cities.

Second: It was once the universal view.

Third: Even in these States and cities, many teachers

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no longer "wield the rod" or otherwise "cow their pupils" into submission.

Fourth: The best American teachers are not exponents of this theory. It is, however, universal in monarchical Germany, where nearly all the teachers are men.

Fifth: The skill-theory is the law of the entire State of New Jersey and of the largest city of the nation, New York. It is universal in republican France, whereas in republican America a majority of the teachers are women.

Sixth: It is the theory of most of those who reject the force-theory.

Seventh: It is the practice of most of the best-trained teachers and of the most successful teachers.

Eighth: The home-and-school theory works well in many schools, especially in private and endowed schools and in the public schools of small communities.

Ninth: Though scarcely gaining ground, it disputes its losses every inch of the way and shows a vitality that suggests possible recovery. It was never the universal view; but it had greater vogue a century ago than the skill-theory and was the first theory to break the omnipotent universality of the force-theory.

Tenth: The pupil self-government theory is new, is aggressive, sometimes succeeds in practice, and has much fascination for several different kinds of enthusiasts:—for those who are of philosophical, of philanthropic, of empirical, of radical frames of mind.

Eleventh: It introduces an elaborate machinery into school affairs.

Twelfth: These four theories will all survive our own generation, and must be reckoned with accordingly.

Each of these theories fits perfectly one and only

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one of the four masculine temperaments,—the force-theory fits the muscular motor individual's views of life and conduct, the skill-theory the nervous motor, the school-and-home theory the vital sympathetic, and the self-government the speculative. From the fact that most teachers belong to the second kind of humanity, it is fairly safe to predict that the skill-theory will generally displace the force-theory and finally be recognized as the standard of American practice in school discipline. This, however, does not prove that it is the best theory. It may indeed be true that American schools are too largely controlled and taught by persons of the nervous motor temperament.

With these general and perhaps fairly comprehensive propositions before us, it becomes possible to deal with these theories in detail, not so much for the purpose of choosing between them as for the purpose of showing how to supply their deficiencies and to ameliorate their severities in actual practice. It is, indeed, seldom possible for class teachers themselves really to choose between these methods.

The teacher who is to rule his class (or hers) because the children or youth fear his (or her) power to inflict corporal punishment upon them is thereby relieved of a certain kind of effort,—which is to discover a way to resolve the difficulties in the character and ability of the mischievous, of the disobedient, of the restless and inattentive by causing internal changes in their views of life and in their dispositions toward others through discovery and realization of new ideals. Such a teacher has a short cut to this end,—in the rural school, he whips the boy or shuts him up in a closet, fastens clothes-pins upon his fingers, perhaps knocks him down. In

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the city school, he sends the boy to the principal for any one of several kinds of whipping,—on the hands with a ruler, on the legs with a rattan or a rod or a switch. (The pain sets up an intellectual and moral reaction.) How severe the corporal punishment is depends partly upon the seriousness of the offence, the previous record of the offender, his size and age, his social standing, and upon the temperament, health, and judgment of the one who punishes.

Occasionally, even girls and those of twelve or fifteen years of age are the subjects of corporal punishment.

It is true that in New Jersey and in New York City, most of the schoolmasters and mistresses say that all necessity for corporal punishment has entirely passed away. But though human nature either in the teacher or in the children does not differ in New Jersey or in New York City from human nature as exhibited in (say) Connecticut or Ohio or Texas, most schoolmasters and mistresses of our country say that the necessity for corporal punishment does exist and will exist always. As one who has managed city school systems in New Jersey and taught in New York some fifteen years,—as well as in the District of Columbia where corporal punishment even of negro children almost never occurs,—I happen to know as a matter of fact that the school-atmosphere in these regions is rather better than anywhere that corporal punishment prevails. As one who has visited schools in forty different States, however, I know that corporal punishment is a necessity in nearly all of them. What is the answer to the riddle? School organization and administration.

In order to govern boys and girls of various races, nationalities, languages, and religions, without resort

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to force, it is necessary to have the following features in the schools—*viz.*:

First: Teachers of adequate scholarship, training and natural ability. They must be professionally selected for, and not politically introduced into, the schools.

Second: They must have tenure of office. (In New Jersey, a teacher is removable only upon proof of incompetence in a regular law-court.) With such tenure, what the teacher says to the pupil is said without fear of loss of position through offending some politician. The teacher, not some lay board member or the boss behind the member, is the school; and every boy and parent and citizen knows the fact. There is no need of the blow of a rod to demonstrate it upon the palms or the thighs of a small boy.

Third: For incorrigibles and habitual truants, there must be in large cities special individual help classes; and throughout the State, reform schools or homes to which the teachers may directly commit these boys and girls. (The intervention of a prosecuting attorney often completely foils the effort of teachers to put naturally bad boys where they belong.)

Fourth: There is required a system of what are usually called "manual training" courses,—*e. g.*, mat-weaving, basketry, bent-iron work, knife-work in wood, carpentry, mechanical drawing, freehand drawing, color work, outdoor sketching, sewing, dressmaking, millinery, cooking, household sanitation, personal hygiene (partly through physical labor), gardening. This system lays the foundations for agriculture, metallurgy, household management, woodworking, and clothes-making. In respect to discipline, it helps realize three purposes: 1st. It uses the surplus physical energy of boys and

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girls that otherwise goes into "restlessness," mischief-making, and defiance of authority. 2d. It develops psychical energy for use in the so-called "scholastic" or "intellectual" studies and thereby overcomes inattention, indolence, and similar offences against proper school-behavior. 3d. It affords a perfect means of discipline in two ways:—I. A certain kind of bad boy or girl may be given double and triple amounts of manual work to do, being thereby deprived of his or her scholastic work. II. The opposite kind of bad boy may be deprived of the privilege of his or her manual work until reform is evident. These punishments operate partly because among boys and among girls it is a social disgrace to a boy or to a girl to be treated as an individual case, to be isolated from the mass, as it were to be considered an Ishmaelite.

Fifth: In cities, there must be, as a matter of general school administration, a process by which occasional offenders may discover that the way of the transgressor is long, if not hard, by sending him first to the principal's office, next, if necessary, to that of a district superintendent, then, if still necessary, to one of the associate or assistant superintendents, and last to the city superintendent, in each instance, invariably accompanied by parent or guardian. (In two years' experience in a city organized as above, with sixty thousand pupils, not one pupil ever actually came as far as the superintendent's office. In every case, those started thither either disappeared in some incorrigible class or reformed in the course of this process.)

In all towns and cities, it should be customary to try boys who fail of good conduct in another school, with another teacher and other comrades. The walk out-

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side the ward or district, the contact with strangers, the new personality of the teacher, in my experience, cures the boy in nine cases out of ten. The method, of course, is one of self-estrangement, and is both philosophically valid and practically useful.

But where one (or more) of these features of a correctly administered school system,—State or city,—is wanting, corporal punishment may be necessary.

There are two kinds of teachers in our schools to-day,—those who get their good recitations from their pupils by enforcing order among them, and those who have order by getting from their pupils good recitations. The first kind of teachers get interest, study, lessons *via* management, the second kind get the results of management *via* instruction. Teachers of the first kind are entirely at home,—at ease,—in schools where corporal punishments and threats of corporal punishment are in evidence or just behind the scenes. Teachers of the second kind are not interested in the matter for themselves. This is one of the conditions whereby the corporal punishment system lasts so long and continues so general. Its defenders are ardent, the rest care but little. Not teachers but public opinion put the system out of the State of New Jersey, the City of New York, and the District of Columbia.

Where, however, there is no authority in the teacher as such, where the teacher is not adequately equipped by nature, by general scholarship and by professional training for the whole work of educating boys and youth, where there are no classes for incorrigibles and no reform schools or homes, where there is no outlet for boyish energy in manual training and the arts and crafts, where pupils can appeal immediately



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to politician, newspaper or board member when a postponed punishment is threatened as on the way, there corporal punishment, prompt, effective, and duly apportioned to the offence is for the teacher who believes in it the only course. In all such places, corporal punishment as a next-to-last recourse is right; and for two reasons:—1st. No boy should grow up assuming that he can violate the order of a superior or the laws or conventions of polite society, and go scot-free. It is a great wrong to him. The rod or its equivalent descending upon him promptly before some master of his schoolmaster or mistress can intervene saves him from contempt for teacher and school. For this reason, the German philosopher Hegel asserted that the sole valid reason for punishment is to assert the moral law.<sup>1</sup> 2d. Since most children go to school to learn, the presence of noisy or mischievous outlaws, unrebuked, in their class is an injury to them. To say this is not to assume that whipping or other corporal punishment always immediately and entirely cures school-boy outlawry. It seldom does so cure the offender. If it cured one offender in two,—if on the average two whippings made the bad boy good,—the force-theory would be the universal, unchallenged practice. But it has no such record. Corporal punishment sometimes causes obedience that lasts for a day or two; sometimes it tides over for a season. In a few instances, in schools employing it as the panacea for incorrigibility, insubordination, disobedience, truancy, neglected home-lessons, class-room inattention, school-yard “fights,” street rowdyism, failure to pass tests, low marks, cor-

<sup>2</sup> By the penalty, society solemnly affirms the violated principle.  
—*Outlines of the Philosophy of Right.*

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poral punishment effects cures. But to speak of an experience, on a considerable scale in one fairly large school; I have found in fact that save in a few unusual and easily recognizable cases, the remedy is worse than the disease. In this elementary school of a thousand pupils, the average number of all kinds of whippings by one principal in his last year of service was sixty a month, and the average number by the teachers was twenty per class-room each month,—running as high as ten daily in some of the intermediate grade rooms. The next principal completely overturned the practice; and for the next two years the total number, with far better order as the result, was eighteen cases,—an average of nine a year as over against an average of three to four thousand a year. Of course, it will be at once said that the earlier practice was a reign of brutality—which is true, for in many instances the whippings were severe and cruel. But the noteworthy facts were two: 1st, that not having a proper tenure of office, properly trained teachers, manual training courses, a class-room for incorrigibles, and an hierarchical system of school organization, the second principal was forced to occasional severe corporal punishments; and, 2d, that by an entirely different approach to the problem of order, with the same corps of teachers, nearly all of them habituated to the immediate use of the ferule upon the least suggestion of disorder, the second principal secured far better order than did the first.

To be specific: In the latter days of the former régime, school-yard fights were so common,—being several every day,—that neighbors often had to interfere. In the second year of the corporal-punishment-only-in-exceptional-cases régime, the total number of fights

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in a school population of five hundred boys, representing thirty-seven different nationalities, was seven.

In short, in poorly organized schools, occasional corporal punishment is a sheer necessity; but even in such schools, frequent punishment sets an example of force that both boys and girls imitate on their playgrounds, causes fierce hatreds of the teachers by many boys and girls, prevents that reverence for, even worship of, teachers which is the true "mother" of intellectual and moral progress in children, and destroys the natural foundation of order through rational self-control in later instruction in the secondary school.

Upon the assumption that a given school-system cannot be reformed, — which is usually true, — the principles that should govern the infliction of corporal punishment are these—*viz.*:

### NEGATIVE PRINCIPLES

First: No mode of corporal punishment should ever be exercised for trivial offences.

Second: Or should ever be employed in the presence of other pupils unless they are joint offenders.

Third: Or should ever be applied unequally to equal offenders.

Fourth: Or should ever be applied to sick or anæmic or crippled or neurasthenic boys.

Fifth: (Or should be resorted to in the cases of any girls of any age whatsoever either by women teachers or by men.)

Sixth: Or should be tried when any other available remedy would serve equally or nearly as well.

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## AFFIRMATIVE PRINCIPLES

First: Corporal punishment should be visited upon healthy, malicious boys. I. For direct defiance of teachers. II. For persistent and intentional disobedience of school rules. III. For maltreatment of other and smaller boys. IV. For such playground offences as fighting, playing marbles (against orders) for money or any other gambling games, and blocking school-lines in fire-drills, or otherwise imperilling lives.

Second: In those communities where schools are "looked down upon" and teachers as such are contemned, corporal punishment should be visited upon any healthy boys who, because of this disposition of adults and of the consequent social atmosphere in their conduct or remarks, assume that teachers are not worthy of respect and act accordingly to the defeat of conscientious efforts to educate them. In other words, though it is highly desirable for teachers to rule through the willing and spontaneous obedience of their pupils, wanting such obedience, it is necessary for them to rule by force promptly exercised.

The approved forms of corporal punishment are (1) blows on the hands by ruler or strap or switch; (2) blows on the thighs or legs; and (3) in the case of resistance to these modes, spanking by hand. When in a community whose conditions necessitate corporal punishment, even this "last resort" fails, the next and really last move, suspension by teacher or principal or even superintendent, fails, and the lay-authorities, whether committee or board or school visitors, refuse to expel a really incorrigible offender, and such an offender returns to school a victor, there is but one thing for a self-

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respecting teacher to do,—immediately resign and depart. Such a refusal to expel is the plainest and ugliest form of request to the teacher or principal or superintendent to resign; and it springs from an absolute contempt either for the personal occupant of the teaching office or for the office itself, or for both.

It may perhaps be profitable to consider what the most successful educator of ancient days had to say about corporal punishment in dealing with Roman youth. Quintilian wrote, “But that boys should suffer corporal punishment, though it be a received custom, I by no means approve; first, because it is a disgrace and a punishment for slaves, and in reality—as will be evident, if you imagine the age changed—an affront; secondly, because if a boy’s disposition be so abject, as not to be amended by reproof, he will be hardened like the worst of slaves, even to stripes; and lastly, because if one who regularly exacts his tasks be with him, there will not be the least need of any such chastisement. At present, the negligence of pedagogues [*i. e.*, attendant slaves] seems to be made amends for in such a way that boys are not obliged to do what is right, but are punished whenever they have not done it. Besides, after you have coerced a boy with stripes, how will you treat him when he becomes a young man, to whom such a terror cannot be held out, and by whom more difficult studies must be pursued? Add to these considerations that many unpleasant, even shameful things, happen to boys when being whipped, under the influence of pain or of fear; and such shame enervates and depresses the mind and makes them shun the sight of the people and feel a constant uneasiness. If, moreover, there has been too little care in choosing governors and tutors of

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reputable character, I am ashamed to say how scandalously unworthy men may abuse their privilege of punishing, and what opportunity also the terror of the unhappy children may sometimes afford to others. No man should be allowed too much authority over an age so weak and so unable to resist ill-treatment." <sup>1</sup>

Century after century, the protest went up to heaven, perhaps from no other man more earnestly than from Martin Luther, who in the day of the breakup of the old order declared,—“Now since the young must leap and jump, or have something to do, because they have a natural desire for it which should not be restrained (for it is not well to check them in everything), why should we not provide for them such schools, and lay before them such studies? By the gracious provision of God, children take delight in acquiring knowledge, whether language, mathematics or history. And our schools are no longer a hell or purgatory in which children are tortured over cases and tenses, and in which with much flogging, trembling, anguish and wretchedness they learn nothing. The world has changed, and things go differently.” <sup>2</sup>

In this changed world since the days of Quintilian and changed again many times since then, there are no slaves to be punished with blows; and we have set out to educate all men. Ours is indeed a new and a baffling problem, for school-going is no longer a privilege but is a compulsion, and suspensions and expulsions, instead

<sup>1</sup> Institutes of Oratory quoted in Painter's *Great Pedagogical Essays*. 90 A.D.

<sup>2</sup> Letter to the Mayors and Aldermen of all the cities of Germany in behalf of Christian schools. 1524.

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of causing sorrow, cause in some youthful breasts a sense of relief and of pleasure.

Once the world was content to educate the strong and brilliant and well-favored; now we propose to educate the mediocre, the dull, even the feeble-minded and the defective. Moreover, we have given over the control of education in the free public State-supported schools to the democracy. Small wonder then that not everywhere can we place the enlightened teacher in attractive surroundings with ample equipment and authority to educate. We have tried to build our educational Rome in a day; and we have almost succeeded. Perhaps our new city will rise complete before many years.

But already there are communities where school government by good teaching is possible; and in such communities, the better system of managing boys and girls as individuals and in classes should be installed. This system involves certain points, which should be set forth.

First: Better is complete obedience slowly won than prompt obedience at heart sullen.

Second: Better is unconscious and spontaneous obedience than any other kind.

Third: Better is even somewhat imperfect obedience that nevertheless issues from admiration for the teacher as one who never gets angry and is always patient, reasonable and kind than outwardly perfect obedience when in the soul of the pupil is the conviction that he or she is only bigger, stronger and of higher authority (as a grown-up) than the small person can be.

There are two ways to break horses. One is to let the colt run the range until pretty well grown and then,

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to "bust" him,—with lasso, curb-bit, rowel-and-spur, nail-studded pigskin lash, loaded saddle, with thumbs gouging eyes and straps suffocating the throat, with ropes hobbling the feet, and straps circling the chest. The colt can be broken so—sometimes it kills, often it ruins the spirit forever. It is a quick process, with immediate victory or defeat.

The other way to break a colt is to lead him with the halter when he is little, to pat and to pet him, to make him slowly bridlemise, to befriend him with blanket in cold weather, with a lump of sugar or bunch of clover, to train him a little at a time regularly; in short, not to break him at all, but to instruct and to educate him. Most of our best horses come into harness or under saddle gently. Voice and whip to them are signals of purpose, not commands of violence. Few horses "school-trained to the eight gaits" were ever taught by blows to know their masters. Most good horses were brought up, as it were, by hand; they were not allowed to grow up and then smashed, beaten, broken into submission. They learned their good manners from civilized, patient, intelligent, kind and well-mannered men. In this respect, many stock farms in Virginia, in Kentucky and in Iowa are decidedly superior to some schools in our land.

Logic and literary custom, sound philosophy and ordinary common sense require that, in most cases, one should discuss the theory of a matter first and later present its mechanical features. But such is the prejudice of many of our citizens and indeed of many of our teachers that one who undertakes first to discuss the virtues of our human nature and thereby to disclose that the best means of developing those virtues are not corporal punishments and other penalties can get little



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or no hearing. But let us now proceed openly and candidly to consider definitely what we wish our boys and girls to become as men and women. What are the moral aims of education? Let us consider this question concretely with reference to individuals.

Evidently the moral aims of education may be stated in pairs—*viz.*:

- I. (1) To preserve the best natural qualities of each individual.  
(2)\* To develop other good qualities in him.
- II. (1) To eradicate the worst natural qualities.  
(2) To inhibit the development of other bad qualities.
- III. (1) To make him useful to himself.  
(2) To make him useful to others and to society.
- IV. (1) To make it safe for him to venture out into life; *i. e.*, to equip him to make a living.  
(2) To make it safe for society to receive him; *i. e.*, to teach him a livelihood that is at least not injurious to others.
- V. (1) To teach him to respect himself.  
(2) To teach him to think modestly of himself.
- VI. (1) To develop in him self-reliance and freedom.  
(2) To develop in him much respect and distinct sympathy for others.
- VII. (1) To make of him one who fears God.  
(2) To make also of him one who loves God.
- VIII. (1) To give him bodily health, when he has it not, and to preserve it in him, when he has it.  
(2) To give him wisdom.

This is by no means an all-inclusive or exhaustive list; but it is of sufficient length to illustrate the point that education seeks always a reconciliation between

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apparent opposites or at least unrelated extremes. It is not so much "the golden means" of Aristotle, as the unity of life, taught by Jesus. That golden means affirmed things in this fashion—*viz.*:

One extreme is timidity, the mean is courage, the other extreme is foolhardiness. One extreme is parsimony, the middle is generosity, the other extreme is wastefulness. Virtue is not the opposite extreme of vice, but a moderation between reason and appetite, the soul in man and the brute in him.

What Jesus saw was that in truth we get one of the pair by seeking the other or to avoid the other, as the case may be: who seeks health gets wisdom, who seeks wisdom gets health: who loses his life saves it, who would save it loses it. It is a doctrine indeed difficult, to be understood only in parables. But it distinctly concerns every educator of youth.

Part of the difficulty that our teachers encounter in the work of educator proceeds from our failure to observe these several facts and principles of human nature—*viz.*:

1. We take no merit of our qualities as such, though we may indeed take demerits of them. One who is by nature frank, open, and certain deserves no credit therefor: this is a quality in him, and no virtue. And yet one who by nature is secret, silent, uncertain deserves and gets censure therefor. It seems illogical, but it is a fact. A quality is no virtue, and yet may be a vice.

2. We may appear to take merit of our qualities when it is labor and anxiety to maintain them. And yet in truth the merit is not in the qualities but in the integrity or unity of character, the force, the struggle against their overthrow.

3. Every quality has its defect: the quality may be good,

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and yet the defect may be evil. Frankness is good, but the defect of frankness is indifference to the feelings of others. Truthfulness is good, yet it works—how often!—ruin to oneself and to others. Loyalty is the capsheaf of all the virtues, yet one may be loyal to a false principle or to a traitorous leader. Courage is the seed of all the virtues in men, yet it has sent many to the deserved doom of properly “lost causes.”

4. We human beings would be in hard case were there not some solution of the enigma. Aristotle found the solution in “the golden mean.” Jesus found it in “seeking.”<sup>1</sup> According to the Master Teacher, virtue is at the point of strain. One deserves credit for making and enduring stress. The strain and stress come at the focal point of the unity between apparent opposites. You and the neighbor are not one, but different. Treat him like yourself. You seek the kingdom? It is within you. We owe debts to God and to men: let us forgive the debts due to ourselves and so be ourselves forgiven. The future appears worrisome: consider the evil of to-day. In fact, men see nearly always the wrong thing! We praise men and things for their qualities that are good, and fail to condemn our own selves for not getting rid of the qualities in ourselves that are vicious; yet a good quality is not a virtue but only God’s gift. In getting rid of a bad quality, do it thoroughly. Be born again. It is not enough to wash the outside of the platter or to whiten sepulchres. Hypocrites are “as graves that appear not.”

It is a striking item of the evidence of the unity of mind that all of us agree that to do right is virtue. Now “to do right” involves what we must call intellectual

<sup>1</sup>“He that seeketh findeth.” “Love your enemies.” “The Son of Man is come to seek and to save that which was lost.”

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operations, moral energy, and emotional relations. We must know the right, will to do it, and do it joyously. Nearly always to do right concerns others. And it is a striking confirmation of the theory here presented again,—for it is not new but the essence of historic religion,—that to do right is never easy. When there is no opposition within or without us, neither we ourselves nor any others ever think of noticing that we are doing right. In other words, one does right or wrong always at some point of personal and inner or of social and outer stress or strain.

It is a subtle doctrine, the outcome of which is considered educationally precisely this.—All the glory is in the striving to overcome. “I have fought a good fight: I have kept the faith”; and what is the crown? It is a crown of more life, more opportunities to fight for the faith,—that, not less, not other. It follows inerrantly that much of the old familiar talk of our schools about the virtues will not stand the test. We must sift the things that are really good out from the rest; and every one of these good things, be it known, is some mode of endeavor, every one. In this scale, to the naturally cheerful, good-natured boy comes not a word of praise for his kindheartedness and sunshine; yet to the boy who is naturally gloomy and unsympathetic but who has set out to win a better nature, all praise. How often the neat and tidy girl is conscious of the unkempt and untidy! Her virtue is not in the neatness and tidiness, but it may yet be in her effort to think kindly of and to help those who are not like herself. That prayer —“I thank God I am not as other men are!” is precisely the most wicked of all attitudes. The thrifty should pray for generosity, the courageous for caution; the

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materialist for vision and the dreamer for good sense; and all for charity.

And the place for inculcating all these endeavors to change and to cleanse and to progress is in our schools. In developing and testing virtue, we should set aside in our minds these prescriptive hierarchies of the qualities;—punctuality, regularity, promptness, silence, obedience to teachers and to rules, kindness, self-reliance, social sympathy, cleanliness, orderliness, neatness and tidiness, accuracy, thoroughness, frankness, sincerity, consistency, courage, fortitude, industry, justice, truthfulness, temperance, nobility, honor, loyalty, economy, patriotism, foresight, prudence—there are two hundred of them easily distinguishable—; and fix our minds resolutely upon the fact that all *virtue consists in endeavor* to attain without hypocrisy such qualities as we do not yet have, and to maintain those good qualities that the “world” would destroy. How hard and base is the man who has all the best of these qualities,—with no desire for yet more! And yet baser is one who surrenders his integrity of soul when the battle goes hard against him.

In the light of this argument, it is plain enough that we are not to be greatly concerned over incentives to virtue. Prizes that lead us to seek knowledge and skill not for themselves but as means to other ends; privileges that lift us to special rank among our fellows; immunities for ourselves that mark our former equals as inferiors; fear of blows, of disgrace, or of other penalties; desire of honors; hope of future good:—all these things, it is now quite evident, can only thwart the true purpose of school discipline, which is to make of the boy something better than he now is and better than he would probably be without that discipline. To attain

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such an ideal, there is but one and only way,—the self-activity of the boy.

We may be compelled by some external exigency, for want of time or more probably for want of patience in ourselves or sometimes for want of sufficient intelligence in the boy or otherwise, to induce him violently to submission and quiet,—for the sake of other boys and girls. Not once in a thousand times do we punish his body by blows or by detentions or his spirit by sarcasms or otherwise—for the sake of that very boy. And yet the bad boy who is satisfied with his qualities, good and bad,—all such are bad and only such are bad—is the very boy for whom all these theories and practices of school discipline have been devised.

The skill-theory of school control involves knowing one's boys and girls. With such knowledge, merely by seating them with due relation to one another and to the teacher, nearly all school-room disorder in an average class may be omitted. These are some of the principles—*viz.*:

1. The vain boy or girl, who misbehaves in order to appear a hero or heroine before the schoolmates, should be put into the rear corner seat. Such a pupil is usually ideomotor (with long, narrow face and slender body).

2. The sneaking sly pupil who renders eye-service but misbehaves when "teacher isn't looking" belongs in the front seat nearest to the teacher's desk. Such a pupil also is usually of the nervous or ideomotor type.

3. Never put a good girl in front of a bad boy, but preferably at his back.

4. In mixed classes, it is usually best to put the sexes in alternate files or rows; but the rule need not be rigid.

5. As the eye does not catch movements in the crowded

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center of the picture quite so well as at front and sides, and as there are more temptations to disorder at the center of the room, it is usually wise to put the merely restless pupils in the front row or in the side files.

6. Do not shame a bad boy by putting him where there are four girls at front, back, and sides; but when possible, isolate him with a vacant seat in front and good boys around him. A bad boy does not yet clearly see himself as he is but is secretly or openly self-satisfied. His curse is pride.

7. Muscular-motor boys (with square faces and strong bodies) may be presumed to be orderly boys in conduct. The speculative boys (with triangular faces and slender bodies) may be presumed to be thoughtful boys in conduct but not very useful in stimulating other boys to loyalty to teacher and school. Their day of personal leadership, if it ever comes, lies years and years ahead. The vital, corpulent, cheerful boys may be presumed to be indolent and indifferent. Do not put two of them in juxtaposition.

8. It is not wise to offer good seats as rewards of orderly behavior. It is not right indeed to offer any rewards of any kind for orderly behavior. This defeats virtue by giving a false aim to endeavor.

9. While it is expedient not to seat in juxtaposition any two pupils who cordially dislike one another or are mutually antipathetic, it is equally inexpedient to set chums in such contiguity as facilitates whispering, fond glances, and the passing of notes.

10. Reseat once a month, "playing no favorites." Whether each pupil should have a new seat will depend upon many conditions. When all seats are well-lighted and there is no "cold corner" in winter, with a class not troubled with an exceeding number of disorderly boys and with girls who whisper, such monthly reseating need not be complete.

11. Sometimes a beneficial change, not obvious to the

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teacher to whom the class-room scene is familiar, will be discovered at once by the principal or by a fellow-teacher. Let some one else by invitation look over the room. Perhaps he or she will see a near-sighted or slightly deaf boy or girl who belongs "up front"; or an overgrown pupil who belongs in the rear of the room.

In order of consideration next after correct seating of the pupils is their proper arrangement in the marching lines. It is the custom to arrange the boys strictly in order of height and the girls likewise, with the shortest boy and girl leading their respective lines. Often, this custom may well be ignored. Sometimes, the order should be exactly reversed. Sometimes, the lines should be broken into groups. But whatever be the marching order, every pupil should know his number and place; and report in it accordingly. It is desirable to place the control of the lines as much as possible under their leaders, for the teacher has many other duties at the times before and after school and at recesses besides seeing that the lines move promptly, regularly, and smoothly.

For the control of the class in its movements in group or as individuals when changing from one recitation to another or to a study period,—putting books away, handling papers, going to the blackboard, going on errands to the teacher's desk, to the dictionary, to the waste-basket, to the supply-closet or out of the room,—it is expedient to discover the golden mean between too many formalities and the freedom that in children and youth soon becomes license. How formal the teacher should be depends partly upon temperament and upon experience and yet mainly upon the class itself.



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Two principles are, however, discernible:—

First: Begin with at least as much of formal system as is likely to be required at any time later. It is easier to relax from severity than to stiffen and to straighten up from slovenliness and slouching. Especially should young and relatively inexperienced teachers begin with sufficient rigorousness.

Second: Keep at least enough of the formalities to train the pupils to orderly group-action. The habit of working in step with one's fellows is, in itself, a valuable and educative acquisition especially in a relatively free democracy such as ours.

Among the devices sometimes of value are such as these—*viz.*:

### I. Changing recitations (for class or section or group).

1. One tap of bell (or similar signal). Close books.
2. Two taps. Put books away.
3. Three taps. Take out new books, place on desk and set in order.
4. One tap. All attention,—recitation begins.

### II. Errands out of room.

On leaving, pupil writes name on blackboard, with time of exit. On returning, adds time of return—*e. g.*:

*Charles Wilson* 10:05 A.M. 10:09 A.M.

At the end of the school-day, the teacher then has a record of all such cases.

Teachers should not go into details as to why the child cares to leave the room. No two boys of the same room should be allowed to be absent at the same time, save in exceptional circumstances. But permission to go should otherwise invariably be granted. In case the

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teacher suspects that this universal privilege is being abused, inquiry may be made of parents; and upon proof, the time lost may be made up after school double or treble or be atoned for by some extra task.

III. Passing papers forward for inspection by the teacher.

1. Order the pupils in each file to pass their papers forward to the front.

2. Appoint the first pupil in one of the outside files of desks as monitor to collect the papers, and to place them on the teacher's desk.

### IV. Blackboard work.

1. Count off nine pupils—1, 2, 3,—1, 2, 3,—1, 2, 3,—and assign to each pupil numbered "1" the first problem, to those numbered "2" the second, etc., and have them place themselves at the blackboard in due alternation. (Or count off twelve pupils and assign four different problems, similarly.)

2. Give the same problems to the pupils of the class remaining at their desks, appointing some to follow those numbered "1" at the blackboard, others those numbered "2," etc.

Straggling back and forth from desk to board should be corrected, and a suitable time-limit set.

### V. The fire-drill.

Twice in my immediate school experience, school panics have been saved. Once, a fire actually broke out, from a match thrown by a careless pupil under a wainscoting. In this instance, the drill worked perfectly; and, by a telephone message to fire quarters, the building was saved with but slight loss.

Upon the other occasion, four street gamins just be-

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yond the compulsory school age came into a very large building at night, with the assembly hall on the third floor densely thronged. They put out all the lights on the lower floors, rang the fire-gong, and yelled "Fire!" intending to stampede the audience. They did stampede some sixty adults; but the children duly formed quietly in drill-lines, checked the other adults thereby, and gave the principal of the school a chance to explain in clarion tones that there was really no fire. In other words, the cry of "Fire!" would have stampeded the entire audience; but the very fire-signal, meant to arouse the crowd to panic, automatically suggested order to the pupils.

In preparing for fire-drills, the following suggestions may be useful—*viz.*:

A. Let every door of exit and on the way thereto have a proper tender,—usually two tenders.

B. Let every line know by information and by drill just the course it is to take out of the building.

C. So organize the lines that there will be a safe order of precedence.

D. In a school-house with two stairways, drill for all to go down one way or all the other; with three stairways, all down the three or two or one; etc.

E. Until the habit is fixed, drill at least three times a week, then twice or three times each month.

F. Use otherwise unusual and yet fixed gong signals; as, two strokes, pause, two strokes, for one kind of exit; two, pause, four, for another kind. (It is best to have a different sounding gong for fire-drills from that used for recitations. When electric signals are used, these should be sounded with unmistakable counts; as, one, pause, three, pause, two, etc.).

G. Slow-walking dismissals, not over two lines to a stairway, make the best standard drills. Mere speed is not requisite.

A panic is worse than a fire.<sup>1</sup> The main purpose of the drill is to avoid the panic; the purpose is not merely to escape from the building.

Upon this skill-theory of school government, there is a bearing of another matter even more important than a clear understanding of the mechanics of school routine. Some teachers are greatly disturbed by trivial disorders in their recitations, especially at the beginning. This disturbance is in themselves rather than in the pupils, for poised and deliberate teachers ignore all trivial disorders and proceed trusting to the interest to be aroused in the topic to bring the entire room to the desirable quiet and attention. There are but three exceptions to the general principle:—Ignore trivial disorders. The first exception is unless it seems likely to develop into larger disorder; the second is unless it seems to be a deliberate attempt to start general disorder; and the third is unless the pupil guilty of the disorder is one who so needs reproof on the spot, because of a general tendency to make trouble, as to warrant setting aside the immediate good of the class as a whole, through proceeding with the recitation, as to warrant the delay of a prompt and adequate reproof. The judgment of teachers is tested often upon this kind of situation.

The foregoing discussion of the mechanics of skilful class organization and management shows how neces-

<sup>1</sup> New school-houses should be as nearly panic-proof as they are fire-proof. To be panic-proof, they need adequate but not too wide halls and stairways. Wide halls and dark, narrow stairs with small doors make a dangerous combination.

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sary it is that the teacher shall know his pupils, his subjects, and the technique of teaching.<sup>1</sup> In all openness of mind, let us agree that teachers who really know their children,—their homes, their powers and weaknesses, their tendencies, interests, fears, dispositions,—who really know their subjects in their general scope and in their details, and who have seriously considered how best to present these subjects to these very pupils, will be so full of their themes and of a sense of the needs of their pupils that it will take rather serious disorders to turn them aside from their proposed lessons. And yet it will not do to proceed to impart knowledge in a roomful of a buzzing confusion of noises and movements. Here, as it usually is in practical matters, the middle course is right because it is wise.

The home-and-school theory of school discipline assumes that the true center of interest for the child is in the home. In the cases of homes of culture, of family affection, and of economic opportunity, this is the fact. But such homes in many cities are no longer the common lot of children and of youth. In most cases in city schools, teachers may find in this theory—that the center of gravity in the child's life is outside of the school sphere—rather aggravation than assistance. In these times, most parents do not care to help their chil-

<sup>1</sup>“Let us now speak of the manner of teaching and imparting them (songs and melodies and rhythms), and the persons to whom, and the times when, they are severally to be imparted. As the shipwright first lays down the lines of the keel, and draws the design in outline, so do I seek to distinguish the patterns of life, and lay down their keels according to the nature of different men's souls; seeking truly to consider by what means, and in what ways, we may go best through the voyage of life.”—PLATO, *The Laws*, Book VII.

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dren with home lessons or to punish them for disobedience or other misconduct at school, but resent throwing any burdens from the school into the home. Such parents as are honestly desirous of lending their aid to help the children at school should be called upon to do so in whatever ways seem open to the teacher.

To illustrate:—The boy is constantly restless and naturally inattentive in school; and the expostulations of the parents at home are of no avail, partly because they do not understand what the school-room requirements are and wherein their boy fails. With some parents, an accepted invitation to spend a day at school observing the regular routine opens their eyes marvellously. What they discover is not that their boy is restless and inattentive, which they probably knew, but that he doesn't care to change his disposition and conduct in this respect,—in short, that he is not simply “a trial” to his teacher because these qualities disturb the class-room but that he is bad in himself in that he is proud of his qualities and self-satisfied.

Again:—The pupil,—usually a boy, sometimes a girl,—shirks the home lessons, asserting either that none are assigned or that “they're easy, and I've already done them.” In such a case, either send a note to the home (perhaps by mail or by a different pupil) or ask one of the parents to call at the school to talk over the matter.

A third instance:—The pupil has exceptional talent,—as in drawing or in music or in history,—such talent as is not sufficiently exercised in the school treatment. Here by informing the parents of the fact, they may be able to give to him private lessons or to buy books of especial value for his library or otherwise to develop him as his gift warrants.

A fourth instance:—The converse of the above is true, and the pupil has some special defects, for the remedying or relief of which the aid of the parent may be invoked. The

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defects of school-children are many and various, often subtle. The entire subject, here suggested, is sufficient in itself to employ the energies of a teacher for a lifetime of investigation. Each one of them indeed is the subject of the life-study of many specialists. The class teacher even in cities with medical inspectors and with examining oculists, aurists, anthropometrists, alienists, and expert physical and other supervisors still needs to know the superficial signs and evidences of such defects as are suggested as follows—*viz.*:

I. Eyesight: A. Near-sightedness. This displays itself in the inability of the pupil to read print or to draw objects held at a distance. The normal distance for reading 11-point type (the main type of this book) is eighteen inches.<sup>1</sup> The effects of near-sightedness not corrected early in life by proper eye-glasses—to be prescribed by an oculist (an eye-doctor, not an optician)—are morbidness, narrowness of mental vision, physical inactivity in outdoor exercises, and usually an incurable selfishness.

B. Far-sightedness. One who is far-sighted does not see small objects near at hand clearly. Reading causes headaches and irritableness, and becomes irksome. The effects of far-sightedness not corrected early in life by proper eye-glasses are (1) dislike of study and all other school work that requires close attention; (2) superficiality of mental vision; (3) an unusual interest in outdoor

<sup>1</sup>Often, I have seen teachers test this not by measuring off eighteen inches but by holding a book at the right distance for themselves, being totally unaware that they themselves were either far-sighted or near-sighted. "Man is the measure of all things," said Pythagoras. "I am a man," therefore, "I am the measure of all things," is their naïve "pragmatic" philosophy.

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games; and (4) often lack of persistence with scattering of interests.

*C. Astigmatism.* One with astigmatic eyes does not see straight lines. His visual images are crooked. There is also an unevenness of light, some parts of the images being too bright, others gray, even black. Serious astigmatism makes good school work impossible. It impedes reading, compels poor handwriting, causes "nervousness" and self-distrust. When not corrected early in life, astigmatism causes in the youth who nevertheless persists in study nervous exhaustion, even insanity.

*D. Esophoria, exophoria, hyperphoria, and similar maladjustments of the eye muscles.* In these cases, the eyes do not focus naturally at the normal distance of eighteen inches; but either too near, or too far away, or not at all. When not corrected either by prismatic lenses or by surgical operations, in nearly all cases, the sight of one or the other eye is lost. Few persons have eyes with equal powers of vision, one usually being stronger than the other. These defects of crossed, or wall, or oblique eyes,—or tendencies thereto, which cause excessive physical strain,—are without respect to the choice of the eye; and it is quite as common to lose the sight of the better eye as of the worse because of these external eye-muscle maladjustments.

Class teachers do well to remember that scientific tests of over 2,300,000 pupils show that 34 per cent. of them suffer from eye defects. In a class of fifty pupils, on the average, seventeen require eye-glasses or eye operations. The cemeteries, the insane asylums, the jails, the menial walks of life, the ranks of day-laborers get most of their recruits from the boys and girls whose



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eyes were defective from birth. To wear correct glasses is for them redemption from the curse of not being able truly to see the world.

II. Hearing: *A.* Deafness. Serious deafness requires medical attention immediately upon its discovery: slight deafness usually also. About four children in one hundred are "hard of hearing." This defect is usually greater in one ear than in the other. Deafness leads to inattention and to indifference to others, and limits the avenues of knowledge. The seriously deaf are seldom ambitious of success, and therefore require especial encouragement. Ear-drums and speaking-tubes, under medical direction, help obviate some of the worst probably ultimate results. Outdoor life, by improving the quality of the blood, sometimes helps to recovery or to betterment.

*B.* Head noises. These often occur in pupils with unusually acute hearing. They are sometimes caused by growths or deposits in the inner ear, more often by anæmia or other ill-health. Sometimes, they are the advance signals of approaching insanity. Children so afflicted are at times irritable and restless, at other times dull and listless; at all times, inattentive and inclined to day-dreaming. All sounds come to them from the outside world in false confusions, mixed with under- and overtones mostly discordant. Children of this kind are to be pitied, encouraged and helped.

III. Spinal curvatures. These afflict especially boys and girls of ideo-motor and speculative temperaments. Spinal curvatures and weaknesses are very common among city children whose ancestry has been from generations of the city poor: they are much less common among rural children and among the city well-to-do.

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Serious cases are easily recognized. But slight cases grow often into serious ones. Any spinal curvature interferes more or less with the spinal cord and its efferent and afferent nerves and hence with the healthful life of the body,—its digestion and other processes. We Americans are the only people in human history who have undertaken to sit up or to stand up continuously for sixteen hours a day; hence, spinal curvatures are rapidly increasing among us. The spine was built for quadrupeds: it is not properly built for use as eighteen-hour-a-day bipeds: it is not anatomically a vertical tower but a horizontal bridge. Adults should lie down flat for an hour every day about midday; and children even more than adults. Of course, we cannot now at once correct this entirely unhygienic long-hours high-pressure day for our people. But we can as teachers help somewhat to relieve the cases of the pupils whose spines are already giving way.

Any spinal curvature causes weakness and makes the person prone to fatigue and exhaustion,—to impatience, restlessness, distress, and allied supposedly moral deficiencies.

IV. Innutrition and malnutrition. Innutrition may arise from insufficiency of food in quality or in quantity or in both respects. It may arise from weakness of the digestive organs. It may arise from impairment of the nervous system. Its familiar and general result is anæmia, which displays itself in the blood in that it has too few red or too few white corpuscles or both and in the tissues which become or are congenitally weak, pale and flaccid. Even the bones may be soft, for want of lime; or brittle, for want of tissue of protein or albuminous substance. There are usually other results

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such as defective special senses, weak reactions, inertness, timidity.

Malnutrition displays itself in derangement of functions in skin, in special senses, in the respiratory, circulatory, digestive, excretory, muscular, lymphatic, cerebral and sympathetic nervous systems. The functional disorders of the system that is suffering from malnutrition are such as require the immediate attention of physicians. Some of the secondary psychical results of malnutrition are irascibility, insubordinateness, fear, sullenness.

The ignorant rich or well-to-do are as liable to both innutrition and malnutrition as are the intelligent poor.

V. Teeth deficiencies. A. Caries. Few children and youth have sound teeth. In any public school anywhere, most of the children are in need of dentistry. In many public schools, ninety-five children in one hundred are in need of tooth filling or of tooth extraction. In some instances even in children of but ten or twelve years of age, nearly every permanent tooth is already in a state of decay. Toothache at school is very common. Many times, disorderly children are punished when pain in their teeth is the cause of their disorder.

B. Irregular dentition. Sometimes, the teeth do not strike together, and food cannot be properly masticated. In one of my classes, I discovered a child with over forty teeth, sixteen of them very large, and several in the center of the upper mouth! This child had been the subject of frequent rebuke from his teacher for mumbling his words and for defective articulation. A glance into this extraordinary mouth told the story of the cause. Our schools require dentists even more than oculists for semiannual inspection and advice to parents.

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VI. The crippled. The disabled and the maimed come to us in all shapes and with all kinds of troubles. Each is a special case. Nearly all of them are sensitive and on the defensive, and yet they are usually ambitious beyond the average pupils. Each should be the special care of the class teacher. One of their common characteristics is a certain deceitfulness that is due to fear of injustice. Their treatment should be kind, frank, just. They do not desire obvious pity, though by no means resenting a tender, reticent, deeply concerned compassionateness.

VII. The feeble-minded. Of these, we have several grades,—1. Dull or feeble of intellect or will. 2. Chorcatic or epileptic. 3. Partially deranged. 4. Imbecile. 5. Idiot. None of them belongs in any public school unless in some class especially arranged for the feeble-minded. When any one of these kinds is present and in the actual operation of the school must be retained, a problem of intense seriousness to the teacher, to the classmates, to the parents of the case in question and to the parents of all the other pupils is presented. They are born to all classes of our people, of all the various nationalities and races and religions. Those of the four kinds,—second to fifth,—may be recognized almost or indeed actually on sight by their characteristic and well-known stigmata, which therefore need not be enumerated here. Before deciding that a pupil is really dull or feeble-minded,—of the first kind,—the teacher may make four simple tests, as follows—*viz.*:

1. Time-rate. Dictate making of twenty marks, 1, 1, etc. A child of this kind will either make them very, very slowly or wrongly before completing the number.

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2. Field of vision. Make five dots on the blackboard, and erase. Ask the child to record them on blackboard or on paper accordingly. The dull or feeble child never really sees five dots.

3. Retentiveness. Say a few words carefully. Pause 30 seconds. Ask the child to repeat them.

4. Execution of order. Draw a rectangle on a piece of manila paper; then cut it out with scissors. Hand paper, pencil (or crayon) and scissors to the child; and ask him to do the same.

The boy or girl who can perform any three of these tests fairly well is probably not, in fact, feeble-minded. He or she who fails in three or all of these tests probably is feeble-minded. In order to avoid criticism by the ignorant public or by the interested parents or by the school authorities at the end of the year for not passing the dull or feeble-minded child forward to the next class, it is expedient to give one's own opinion on the case as early after receiving him or her as one forms that opinion.

VIII. Special deficiencies in functioning, or in the several studies. These occur in Protean forms. One child cannot write evenly and legibly; another cannot spell; another is foiled by arithmetic; a fourth has no verbal memory; a fifth is prone to giggling or other minor hysterical or "nervous" displays; a sixth "hates" music; a seventh is so slow in obeying any order as to seem defiant when really he simply cannot react promptly to orders conveyed through his auditory tract; an eighth is always drawing something openly or clandestinely; a ninth is tardy because he has no adequate sense of time or of space or of either; a tenth whispers automatically and is scarcely aware of this breach of school

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decorum when committed; an eleventh is impolite, being unconscious of others; a twelfth pilfers, being without the property sense. "There is none good, no, not one,"—is almost true of every class of forty students in America. Scarcely one in forty is wholly good. Often conferences with parents help. The only good boy is the one who knows that he is not good but is trying to do better.

For the fourth theory of government at school,—and the last to be considered here,—we must look to the modern doctrines of democracy for justification. According to democratic theories and practices "no person may govern another without that person's consent,"<sup>1</sup> and "all men are created equal."<sup>2</sup> Democracy is the rule of all by the majority,—as every one knows. But an ancient authority<sup>3</sup> showed of all governments, that even of a democracy, two facts are true: First, the government is always operated by individuals; and, second, these rulers are usually the older men of the nation or community. The supporters of this new theory of pupil self-government set up in addition the familiar propositions that school is preparation for life and that the true way of preparation is trial and experiment. From these five premises follows the final conclusion that the true way to prepare for life in a democracy is to constitute in the school a democracy in which a majority of the pupils (duly organized in some form of representative government) control all of them. In order not to transgress the obvious common sense

<sup>1</sup> Abraham Lincoln, *Lincoln-Douglas Debates*: frequently repeated by him.

<sup>2</sup> Thomas Jefferson, *Declaration of Independence*.

<sup>3</sup> Aristotle, *On Politics*, Book VIII.

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of the situation, in college, in high school, in academy and in elementary school alike, they have a court of appeal whose justices are the adult teachers.

To condemn at once pupil self-government in its theory and in its practice, without calling before the bar some actual "school cities" and "junior republics" and "students' senates" might be pedantic dogmatism; and to discuss the theory and practice adequately in these pages would be to increase them to double their number. Let me give, first, my own opinion after some trial and much observation.—Under the right college president or school principal, with competent professors or teachers friendly to the experiment, in certain kinds of neighborhoods, the theory when not pressed too hard works reasonably well alike for all ages of students. Not gainsaying this fact or desiring to see these experiments fail and cease, I would, second, offer a few suggestions as to some of the principles of ethics essentially involved in this matter of school discipline. The general stages of growth in morality (to promote which growth is the educational purpose of school government) are three—*viz.*:

1. obedience to persons and to their definite orders;
2. obedience to maxims, laws, customs; and
3. obedience to principles and to reason.

The first stage may be characterized as that of "prescriptive morality"; the second as that of "doctrinal morality"; and the third as that of "rational conduct." Hitherto, educators have assumed that the age-period of the first kind of obedience ends at the end of childhood and the beginning of adolescence; that the second kind characterizes the entire period of

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adolescence; and that adults should be emancipated from personal authority and from formal laws and "do their duty" of desire and of intelligence and of their own good character. Obviously, pupil self-government assumes that humanity has no lesson for the individual and that he can skip from obedience to parents at home to the third stage, omitting the half-period of obedience to teachers and the entire period of obedience to the set "rules and regulations" of the schools. This may be true. If so, the American boy is abridging the experience of the race, short-circuiting human history; perhaps, he inherits democracy in his brain cells from his self-governing parents. It is a question of fact, to be scientifically determined by systematic trial, experimentation, generalization, correction of error, and verification. If, as a matter of fact, American school and college students can beneficially govern themselves by electing their own rulers and police, an educational revolution is at hand too vast and momentous for farther discussion here. On the other hand, if "school-cities,"—and their similars,—by the omission of a necessary social indoctrination gradually into the approved modes of conduct of adults mean that the "letter of the laws" shall not be known perfectly by a considerable number of our citizens, we shall find ourselves in such a welter of persons at tangential and oblique angles of relation to one another as amounts to chaos and would inevitably end in the ruin of society. Here again we come upon two questions of fact: 1. Does or does not pupil self-government mean the abandonment of social indoctrination in common customs for the pupil citizens? 2. Even though it be true, in a sense, that the voice of the (adult) people is the voice of God, is it true that the



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majority of a group of boys or of youth is, in any useful sense in respect to their own government, authoritative?

We may perhaps get some light upon these two questions by considering a much larger question, with which indeed any treatment of class and pupil control is greatly concerned, What are the qualities that we should desire to see manifested in our boys and girls? Are they just the same qualities as we require of adults? Would a society, indeed, be endurable by adults in which the boys and girls were on an even plane with their elders? Taken literally, are such phrases as "a manly boy," "a man with the heart of a child (or of a woman)," "a motherly girl," or "a boy with the sweet face of a girl" to be taken as satire or as praise? Is a thoroughly self-reliant boy one who promises well or not? Do not, in fact, sex and age modify the requirements? Such questions are their own answers. Common sense,—which is a large part of ethics,—can permit no other answers.

The best thing that we can say of a little boy or girl is to call it "an obedient child." We scarcely expect of it either cleanliness or neatness, tidiness or orderliness, not even truthfulness. Though we do expect of all older persons,—those from four years up,—decency and modesty in that sense, yet in the larger sense even modesty in men is seen to be a limitation upon their possible usefulness. We admire and praise fortitude and courage in men, yet in children the same qualities are seldom better than obstinacy and daring. We have indeed given bravery so wide a meaning that it is a virtue appropriate to human beings at any and every age; but upon consideration, how few the universal virtues are! Honor, so greatly admired in men, is reprehended in boys; and loyalty requires too large an in-

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telligence to be possible to them. Truthfulness is an adult quality, provisioned only in part by the boy-virtue of truth-telling; but boys themselves often call the truth-speakers "tattle-tales," making nice distinctions of honor as to what may be told and what should be concealed. We applaud fearless men; but we watch fearless boys lest they come to grief.

Among the "school virtues"<sup>1</sup> are these—*viz.*:

1. Silence. 2. Punctuality. 3. Promptness. 4. Regularity. 5. Neatness. 6. Respectfulness. 7. Politeness. 8. Orderliness. 9. Tidiness. 10. Cleanliness. 11. Truth-speaking. 12. Kindness. 13. Earnestness. 14. Diligence. 15. Attentiveness. 16. Studiousness. 17. Frankness. 18. Patience. 19. Niceness. 20. Sympathy.

Of these, three things may be noted—*viz.*:

First: We do not expect some of them in the conduct of boys upon the playground or elsewhere out-of-doors,—*e. g.*, silence, neatness, tidiness, studiousness, patience, niceness, sympathy.

Second: Some we do not expect of girls equally with boys, — *e. g.*, regularity, orderliness, truth - speaking, studiousness, frankness.

Third: Some we do not expect of boys equally with girls,—*e. g.*, neatness, tidiness, kindness, patience, niceness, sympathy.

Fourth: Of pupils under thirteen years of age, we expect scarcely any qualities as much as of those above that age.

Fifth: Some are not desired in full-grown men except under special conditions in certain occupations,—*viz.*: silence, respectfulness, studiousness, niceness.

<sup>1</sup> See pages 170-173, above, for a criticism of the term.

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In short, we do not desire boys to be "little men" or men to be "big boys"; we do not desire girls to be "little women" or women to be "big girls." What we do hope and pray and work for are these things—*viz.*:

First: That the child's qualities shall be the seeds of the man's qualities and of the woman's. Obedience to persons is to grow into self-reliance in the light of principles used intelligently *via* the mediate course of obedience to fixed, certain, uniform and universal laws and customs. By this dialectic of growth, the child who obeys becomes the man who commands.<sup>1</sup>

Second: That since the motive of the school and of the college is self-culture, in the main but not wholly the personal qualities shall be developed in them, leaving the social and altruistic qualities to grow in the atmosphere of church and of family and to come to full maturity in the adult's world of affairs.

Third: That not to anticipate the conditions and requirements of the future, but rather to take the child's present conditions and requirements and himself, to make at once of these the most that we can is the true educational course,—“first the blade, then the ear, last the full corn in the ear.”

Fourth: That the true aim of school discipline is, upon consideration of the temperament and capabilities of each child, to develop him accordingly, not trying the miracles of converting one temperament into another, or of making the slow quick or the dull keen but using each pupil's capital rationally and completely.

And yet for all persons of whatever age, sex or race,

<sup>1</sup> It was an old saying even in the time of Aristotle,—“For he who would learn to command well must, as men say, first of all learn to obey.”—*Politics*, Book VII.

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virtue in itself consists in rejoicing and in sorrowing, in loving and in hating aright; and training in virtue teaches how to form judgments aright and how to produce delight in good dispositions and in noble actions. In this sense, education may develop virtue and fill out the deficiencies of nature.<sup>1</sup>

“And beside this, giving all diligence, add to your faith virtue; and to virtue knowledge; and to knowledge temperance; and to temperance patience; and to patience godliness; and to godliness brotherly kindness; and to brotherly kindness charity.”<sup>2</sup>

“Always add: always proceed: neither stand still nor go back nor deviate. Be always displeased at what thou art. If thou sayest ‘I have enough,’ thou diest.”<sup>3</sup>

<sup>1</sup> Aristotle, *On Politics*, Books VII-VIII.

<sup>2</sup> Second Epistle of Peter i:5, 6, 7. “Virtue” is steadfastness; “temperance,” moderation.

<sup>3</sup> Saint Augustine, Sermon, *Concerning the Words of the Apostles*.

“The surest way for the learner is not to advance by jumps and large strides; let that which he sets himself to learn next be indeed the next; that is, as nearly conjoined with what he knows already as is possible; let it be distinct but not remote from it; let it be new, and what he did not know before, that the understanding may advance; but let it be as little at once as may be, that its advances may be clear and sure. All the ground that it gets this way it will hold. This distinct, gradual growth in knowledge carries its own light with it in every step of its progression in an easy and orderly train.”—LOCKE, *Conduct of the Understanding*. 1685.



## CHAPTER VII

### CLASSIFYING, MARKING, GRADING AND PROMOTING PUPILS

What numbers properly constitute classes in the various schools and grades?—The count-system in marking.—Four factors in grading,—age, home opportunities, native powers, actual attainments.—Conspectus of elementary course of study.—Frequency of grading.—Retardation.—Machinery *versus* personality.—The “trick” of relative standards *versus* the justice of absolute standards so far as these are humanly possible.—Why the class teachers generally should decide promotions,—and when they should not do so.—The precocious, the normal, the altricious.—Psychical ages *versus* physical.—The *locus* of a study.—Overcrowded curriculums.—Study-periods at school.

**I**N schools of more than one teacher, the classification of the pupils is never a matter wholly within the control of any one teacher or school officer. In all schools with two or more teachers, the classification is a matter partly of the general organization as arranged by the higher school officers and partly of mutual arrangement among the several teachers.<sup>1</sup> A few principles, however respecting the matter are in place here.

First: It is fairly agreed that, in elementary schools, the first primary grade and the eighth (or last) grammar grade should have classes smaller than those between.

<sup>1</sup> Chancellor, *Our City Schools: Their Direction and Management*, Chapter IV; also, *Our Schools: Their Administration and Supervision*, Chapter VII.

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To illustrate:—Kindergarten, 25 pupils per teacher; first primary, 35 pupils; second to seventh, 40 pupils per teacher; and eighth grade, 35 pupils per teacher. It is a common enough saying that third grade is easiest to teach and fifth hardest to govern. But in respect to this matter, temperament and training are important factors in the problem of adjusting teacher and grade.

Second: It is universally agreed in the profession that teachers with two grades in a room, whether a half year or a year apart, should have less pupils than one all of whose pupils are in the same grade. Laymen on boards of education, however, usually give to the teacher with mixed grades more pupils than to the one-grade teacher. Since forty are as many as any teacher should ever have, a teacher with two grades should not have over thirty-two. A teacher with three grades should not have over twenty-four pupils.<sup>1</sup>

Third: It is commonly agreed that mixed classes (of both sexes) are easier to teach than girls' classes and that girls' classes are easier than boys' classes. It is commonly agreed that mixed schools are rather better than schools for separate sexes, even when in those schools there are separate classes for each sex. Some large cities have boys' and girls' high schools, but the tendency is not to establish such schools. In the same way, except in the largest cities, the tendency is to establish high schools with complete curriculums and not

<sup>1</sup> The State of Maryland provides by law that a district school with over twenty-five pupils shall employ two teachers; with over fifty, three teachers, etc. This law, like the tenure of office and municipal pension laws of the State of New Jersey, the teachers' salary law of Indiana, and the separate school election laws of the Pacific Coast and Rocky Mountain States, should be inscribed in red letters in every teacher's book of memory.



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to make separate high schools for mechanic arts, for commerce, etc.

Fourth: In classifying the pupils of small schools with two or three teachers, there is no fixed rule; but the tendency is to give to the lower (or lowest) teacher the larger (or largest) number of pupils, and likewise the smaller (or smallest) wages. In a three-teacher school, the intermediate teacher should usually be of the least experience, receive the least wages, and have the largest number of pupils; but the lowest teacher should have the middle amount of wages and the smallest number of pupils, while the highest teacher should have the greatest wages and the middle number of pupils. To this, there, of course, may be indubitable exceptions.

Fifth: All proposed elementary classifications, such as placing foreigners in one school (or room) and natives in another (or room), or setting apart some pupils for preparation for high schools and others for instruction in trades, are contrary to sound Americanism. A wide variety of associates is good for every child, and there is but one standard educational régime—from motivation, to intelligence, into efficiency and up to morality.<sup>1</sup>

The public school at any rate should be, must be, and I hope, always will be a universal school. The only concession to be made is to allow separate schools to negroes in the South or wherever they are numerous.<sup>2</sup>

Sixth: Classification in high schools and in grammar schools with departmental organization should, when-

<sup>1</sup> Chancellor, *A Theory of Motives, Ideals and Values in Education*, Chapters XI-XIII.

<sup>2</sup> For the argument to abandon the American common school (the German dream of the *einheitschule* realized), see Perry's *Problems of the Elementary School*, Chapters I-III.

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ever possible, be determined upon these factors and principles—*viz.*:

I. Subjects requiring laboratory or library work should have smaller classes than such recitation-subjects as the Latin and Greek authors—*e. g.*, a physics class should not have over twenty-four pupils, while a Cæsar class may well have forty-two. Mediate between these extremes are classes in subjects requiring much written work to be examined by the teacher—*e. g.*, English.

II. Teachers whose work requires much outside preparation in advance or correction of papers after class should have both smaller classes and fewer recitations per day than other teachers.

III. When a teacher has several classes of the same grade in the same subject, his assignment of number of recitations and of pupils per class may well be larger than that of teachers with several different subjects or the same subject in different grades.<sup>1</sup>

With the general classification determined, then, by considerations outside of the teacher's control, there remain three other allied matters partly within his or her control, and mainly to be operated by him. Of these, the first concerns the marking of pupils in respect to their conduct and to their proficiency in their studies. In cities, the class teachers mark in accordance with the directions of the higher authorities. Even so, however,

<sup>1</sup> One high school with 180 pupils had 14 teachers; another but forty miles away had 375 pupils with 12 teachers. But the former had poor ventilation and the latter excellent ventilation. In a general way, the teacher who commands the higher salary can and should do and usually wishes to do the harder work,—either more work with more pupils or more difficult work with more advanced pupils. The average salary paid in the former school, however, was actually higher than in the latter, showing a wiser community.

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the personal equation of the teacher enters into marking. In villages, the kind of system used in marking is usually within the control of the teachers.

Where class teachers do control this matter, or are influential in it, the following principles are likely to be accepted as reasonable and useful. Marking at all is, at least in part, "a necessary evil." Praise or censure of any individual by any other individual is a disagreeable matter. "Judge not" is a principle by no means alien from our better human nature. But teachers, however, are set as judges and dividers among children and youth; and from some marking, it is impossible to escape.

1. It is desirable, therefore, to postpone marking as late in school life as public opinion will permit. To mark kindergarten or first or second grade children is scarcely ever required by the parental opinion or by the professional opinion of a community. In some places, pupils are not marked until the fifth grade.

2. Both daily work and tests and examinations should be marked when any mark at all is given. Marking daily work, however, does not mean marking every day. It means crediting the pupils' daily lessons in the term mark. The usual custom is to count daily work half. It should not be counted less than that in any grade of elementary or high schools. Two-thirds is a fair proportion for intermediate grades; and three-fourths for higher primary grades, when any mark is given.

3. When any subject is marked, all others should be, lest the pupils neglect the subjects not considered by the teacher important enough to be marked.

4. Averaging all subjects should not be required;

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but when required, the logical studies should be counted higher than the others.

To illustrate:—

	SUBJECTS	MARKS	COUNTS	SOLUTION
Grade VIII	Arithmetic	7	5	$7 \times 5 = 35$
PUPIL'S NAME	Grammar	5	5	$5 \times 5 = 25$
<i>George J. Field</i>	Composition	6	2	$6 \times 2 = 12$
	Physiology	9	1	$9 \times 1 = 9$
	Writing	9	1	$9 \times 1 = 9$
	Manual Work	6	4	$6 \times 4 = 24$
	History	7	3	$7 \times 3 = 21$
Department	Geography	9	3	$9 \times 3 = 27$
B	Music	9	1	$9 \times 1 = 9$
	Drawing	9	2	$9 \times 2 = 18$
	Spelling	8	2	$8 \times 2 = 16$
	Current Events	9	1	$9 \times 1 = 9$
		12	30	30
		93		214
		7.9		7.0
				General Average
				7.0

In this instance, were all studies counted equally, the average would be not 7.0 but 7.9.<sup>1</sup>

5. The question of marking is part and parcel of the question of how often to send reports to parents. In cities with large foreign populations of ignorant parents, reports are often worse than useless,—often quite as much “bones of contention” as in some American-descended “old families.” It is fairly agreed among educators that reports should be sent as infrequently as parental opinion will permit, certainly not more often than six times a year.

<sup>1</sup> The question of marking is discussed at length from the viewpoint of the Superintendent in Chancellor's *Our City Schools: Their Direction and Management*, pp. 153-160.

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6. In setting down marks at the beginning of a year, it is wise to mark low,—to give the benefit of any doubt to the teacher. At the end of the grade or year, the benefit of the doubt belongs to the child. And children like to feel that they are going up-hill.

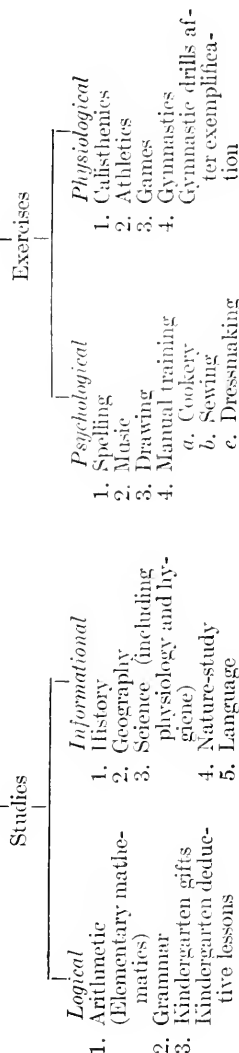
The question of marking is not the same as those of grading, of promoting and of the report sent home,—common professional practice and parental opinion to the contrary notwithstanding.

7. Whether to mark in words or in letters, in per cents. or on the scale of 10 or in figures (such as 1, 2, 3, 4) has long been a moot question. After trying various plans in several towns and cities, I have come to the practice of marking on the scale of 10 and now discourage all my teachers from giving decimals except in the average. One advantage over words, over arbitrary figures and over letters is that decimals permit easy shifting of the “passing mark.” An advantage over per cent. marks is that decimal marking does not attempt fine, impossibly fine, distinctions. Among the objections to “scale of 10 marking” is that “parents understand words better”; which I do not believe to be the fact. Another objection is that it tells the parents about their children too definitely. But why give them vague information? Let us tell the facts, or say nothing at all. A third objection is that ignorant parents cannot interpret the scale figures. This is true. They err equally as to words and arbitrary letters; it is the first objection in another form. Such words as “satisfactory,” “fair,” and “excellent” give them much trouble.

The grading of pupils should be with reference in part to each of four factors,—their ages, their home opportunities, their powers and their actual attainments.

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## The Elementary School Course of Study



### Exceptions

Some topics in logical studies should be treated as informational lessons, inductively

Some topics in informational studies should be treated as logical lessons, deductively

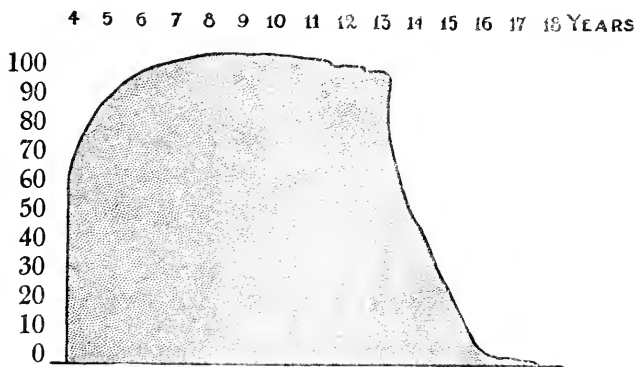
Such subjects as school-gardens, public exhibition programs, school-dramatics, and the special crafts and trades are too complicated in their nature to warrant any classification herein. Nor is it intended to assert this scheme rigidly.

## CLASSIFYING, MARKING, GRADING, PROMOTING

This is a hard doctrine. It means that three several customary practices of our schools should be given up. It is unfortunately true that they are not likely soon to be given up everywhere; but until they are given up, we shall not have *bona fide* education.

First: It is unfortunately true that in many cities there is insufficient housing accommodation for all the pupils. In such a condition, they drop out of school as soon as the law allows. Many do this, anyway; but

THE PRECIPICE <sup>1</sup>



school-congestion accelerates the process. In most States, the compulsory education term, fourteen years, is a precipice that may be accurately set forth in this diagram prepared from the records of over 2,000,000 pupils.<sup>2</sup>

<sup>1</sup> But for the facts that in some States, the term is twelve years of age, and in others thirteen, and that the laws are not everywhere enforced, the precipice would be even higher.

<sup>2</sup> In this connection, it is highly important to note, first, that when the grades that enroll pupils above fourteen years of age have abun-

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In consequence of this disappearance, month by month, of pupils as they reach fourteen years of age, it is a common practice to pack the higher grades with pupils not prepared for their studies. One cause is that the school officers do not like to admit, either to themselves or to the public, that so few pupils stay at school to finish even the grammar grades. Sometimes, I wonder how many pupils, upon an honest grading with a course of study intelligently prepared, would actually reach the grade next below high school, for I know that many are "pushed up." Another cause is that room can be made in lower grades for new pupils by taking a series of groups,—now three, now ten pupils,—room by room, at almost any time in the year and "sending them on." This affects, often injuriously, the grading of nearly every class in the school.<sup>1</sup>

So classifying the pupils as to put really mixed classes into every room may be necessary, but then labelling them as uniform standard grades is objectionable on these several grounds. First, it worries the teachers. To be specific: The teacher who has thirty seventh-grade pupils and then is assigned ten more pupils who are really sixth grade in quality worries because she knows that she will be adjudged by the public, and fears that

dance of "manual training," the number that fall over the precipice is much smaller than elsewhere; and, second, that school systems with ample kindergarten accommodations both have far less pupils retarded in grades 1 and 2 and lose less pupils at the precipice than school systems without ample kindergartens. When he had seen this hope of his young manhood as Superintendent of Schools of St. Louis realized on a great scale, Doctor W. T. Harris expressed the greatest happiness, for he had reached the vision of the true function of the kindergarten,—the awakening of self-activity.

<sup>1</sup> This is not to be taken as an objection to frequent regrading of classes, for the discussion of which see pages 199–202.



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she will be adjudged by the school authorities, a failure if the ten do not reach eighth grade along with the thirty.

The second practice of our schools that must be abandoned in order that we may accept the principle that age, home opportunity, power and attainment should all be considered in grading is that of taking but one of these into account—*viz.*, attainments. To this practice, there are two objections, one of reason, the other of expediency. As a matter of reason, of the attainments of a pupil,—that is but one term for indicating his actual proficiency in the subjects of the course of study, and several others are equally good,—grading is seriously concerned with but one group—*viz.*, his attainments in the logical studies. How far a pupil may have gone in history or geography, in music or drawing or manual training, is of but little concern: what he knows of number and arithmetic and of reading and grammar is, however, of vital importance. If attainments alone are to be considered in grading, then the field considered is still too large, for only English and mathematics really matter. A pupil may skip Asia and yet learn Europe in geography or the colonial period in American history and still learn the national period; but he cannot learn interest until he knows fractions or skip the parts of speech and yet learn the grammar of sentences. The order in the informational studies is a matter of convenience; that in the logical studies is one of necessity.<sup>1</sup>

<sup>1</sup> When attainments and proficiency in other subjects must be considered, their rank in importance in determining the power to go forward is—highest, the logical studies; next lower, the psychological exercises; still lower the physiological exercises; and lowest, the informational studies, whose key is “interest” and whose refrain is “tell us something new and delightful.”

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The other objection to considering attainments alone in promotion is one of expediency in that in most instances one or another of the following situations is likely to develop—*viz.*:

First: There is apt to be an excessive retardation of certain groups of children in the lower grades so that an absurd and even dangerous situation arises as to age. Children of twelve, thirteen, even fourteen years of age are allowed to hang fire in the lowest grades, even the first. In such grades, they are physically and morally and socially out of place, whatever be the facts in respect to their intellectual proficiency. This is so absurd that laymen on boards of education often prescribe, as a matter of common sense, a rule that upon the second endeavor to do the work of a grade the pupil shall be promoted, whether or not he has attained a satisfactory standard. The demoralizing effect of such a rule upon other and younger boys of an indolent temperament is obvious. The rule simply crystallizes the impression they get from the mere presence among them of those who cannot do the work.

Second: There arise cases where pupils whose parents can and do help their children, in one or other of many ways, see them held back for want of technically satisfactory proficiency when the parents know that the actual understanding of the world and life of their children is sufficient to warrant advancement. Of course, to say that home opportunities should be considered in grading pupils raises at once the questions of "class-discrimination" and "personal favoritism." But the answer is simple and sufficient.—Teachers do not create these differences, and our business is to operate with the facts. A slow or dull or careless boy whose parents

can and will help him, or a frail girl not quite up to the mark but similarly helped at home may, and probably will, benefit by promotion where other children of the same qualities but without the same help would only suffer thereby. What we are to work for is the good of the child, not the maintenance of a mathematically ideal system.,

Third: The facts of varieties of powers not in exact correspondence with demonstrated attainments are too obvious to warrant delay on this point. To be specific:—A boy with “marks” of but 60 or 65 per cent. may nevertheless be in fact better fitted to advance into a higher grade than his companion whose marks average 80 per cent. The qualities that indicate the wisdom of advancing a pupil without the required marks are these—*viz.*: 1. Eagerness to learn. 2. Persistence of endeavor. 3. Wide general information. 4. Notable proficiency in some lines, though there are deficiencies elsewhere,—in short, concentration, with materials on hand to be concentrated.

The third practice of our schools that must be abandoned in order to clear the way for a more rational and equitable procedure in respect to the grading of pupils is the substitution of machinery by personality in education. Machinery takes strange forms, some of them finer than spider’s web. It is not merely a safe rule to use as little machinery as possible in education but one rather of the utmost importance as being essential to all true education, which is essentially such a relation of persons as results in the benefiting of inferior by the superior through the transmission of knowledge. In the actual practice of our schools, there is sometimes such a taking of refuge behind rules as may fairly be char-

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acterized as the cowardice of the incompetent. In respect to the matter in hand, it is so much easier (for some natures) to say,—“But, Mrs. So-and-So, you see that your son’s marks in arithmetic and geography are so much below the passing mark that it would be contrary to the rules to promote him,” than to enter upon a plain and comprehensible statement of the real facts about the boy that constitute the causes for his getting the low marks. Sometimes, in his heart (or hers), the teacher knows that, despite the marks, one boy who has passed should repeat and that another who is to repeat should be allowed to advance. The one boy may really be, either physically or mentally, too young to be ready for the higher work. This is especially apt to be true in cities with schools of high standards. The other boy may be so old that he really requires the stimulus of the companionship of boys certainly not younger than those with whom he has, on technical marks, “failed to make the grade.”

Upon the ultimate analysis, we are really marking our pupils in most of the subjects by personal opinions rather than with machine-exactness. Even in mathematics, the opinions of teachers are often at variance. One teacher marks a problem as wrong when the answer is not correct. Another gives partial credit when the principles employed are correct but there is a slightly incorrect answer. A third ignores the answer and marks the problem right when the principles involved are understood, though the answer is seriously in error. A fourth goes through the problem and marks it in detail,—a right process and operation gets its full relative credit, though what goes before and after is all

wrong. Given forty pupils, no two teachers could independently grade them all exactly the same. We are, therefore, back upon personal elements however we may seek to avoid them.

Grading and promotions are related in theory as cause and effect, though for the reasons cited above, often despite failure to win promotion, a pupil is lifted forward, sometimes when neither he nor his parents, neither his teacher nor his schoolmates approve of the advancement.

Various ideas to govern promotion are urged. Let us consider, first, the least meritorious.

It is not at all uncommon to find that there prevails in a school system or in a neighborhood an "understanding" that "good teachers never pass all of a class or 'keep back' many." When this vague understanding is reduced to definite terms, it means that every teacher must pass at least nine-tenths of the class but must not fail to "keep back" at least one pupil, otherwise, she either is "a poor teacher" whose children "fail to make progress" or a weak teacher without "a proper standard."

This idea is on a par with that which, in respect to discipline, asserts,—“A good teacher always reports to the higher authorities a few pupils each year for misconduct but never reports many.”

The notion that, of any class, it may be said dogmatically that "some must fail" conveys plainly enough to those who understand such matters the fact that to those who hold it grading is a matter relative not to the subjects of the curriculum but to the "poorest scholar" in the class. Let us see, in a specific instance, how this works.

## CLASS TEACHING AND MANAGEMENT

Class of forty pupils	{	A—Five are excellent (say) 9 or over
		B—Twelve are good (say) 8 or over
		C—Fourteen are fair (say) 7 or over
		D—Five are passable (say) 6 or over
		E—Two are poor (say) 4 or over
		F—One is very poor (say) 2 or over
		G—One is almost worthless (say) 0 \

One teacher satisfies his “professional conscience” by holding back group *G*; another has a professional conscience demanding that groups *G*, *F*, *E* all must repeat. Perhaps there is now cited the rule of the system or of the neighborhood that “7 is the passing mark.” What happens? These teachers discover a way to “mark up” all the delinquents except (say) groups *G* and *F*; or perhaps they “hold back” only *G*. On their theory and practice, they cannot “keep back” groups *D*, *E*, *F*, *G*, for they contain 9 pupils, nearly one-fourth of the class, whereas “nine-tenths must go forward and not over one-tenth (in this case 4 pupils) can properly be deprived of promotion.”

A second idea, which prevails in some regions, declares that the marks and opinions of the teachers should be either ignored or but slightly regarded and that “the higher school authorities should make the tests impartially.” In considerable travels and a fairly long experience of life, I have yet to see one human being judge another impartially. In such a situation, I prefer enthusiastically to be in favor of all those men and women who judge other human beings sympathetically. In consequence, it seems to me highly approvable to give the benefit of any reasonable doubt invariably to the student in all academic performances from kindergarten to the college degree and therefore invariably to

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give the benefit of any reasonable doubt to the general public in respect to all professional certificates, licenses, and diplomas. In other words, where on a considerable scale human life and property, human culture and ethics are not at stake, let us favor the student; but where they are at stake, as in the cases of the physician's diploma, of the lawyer's certificate of admission to the bar, of the teacher's license, and of the minister's ordination documents, let us favor those who otherwise might be the victims of dullards, of quacks, of the uncertain, and of the depraved.

This second idea,—that it is best to let those who do not know the pupils determine their school-standings by rigid official tests,—has two proper uses. These are in the cases of "reasonable doubt" on the part of the teacher and in the cases of appeal by parents or guardians who feel that the teachers' opinions are in error. In all these cases, upon full hearings of all concerned, let the standings be determined by the higher authorities when these are professional educators. Otherwise, the teacher himself should be the final judge.

A third idea prevails in some sections, which is that all systems of promotion, of grading, and of marking should be made as flexible,—that is, as human,—as possible; and that all doubtful cases and all cases of "holding back" should be made "special orders" to be considered by their teachers, by the next higher teachers, by the school authorities, and by the parents, in as close conference as is feasible, to the end that the best thing shall be done for the child or youth.

It is a bad thing for a boy or girl to be pushed forward beyond his mental powers or physical strength.

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It is a grave offence to keep a youth or child at work less difficult than he can do.

It is a misfortune to be retarded at any stage in school; and it is also a misfortune to be graduated at a precocious age from the high school.

Not a pair of Scylla and Charybdis but several pairs threaten the passage of a boy through the strait of school life.

A flexible system of promotion involves different features in the several kinds of schools,—such as high and elementary schools; such as large city, union town, small city, graded rural, and district schools. No rules can be made to fit each case, other than the rule to try to be reasonable and sympathetic in all cases. Yet a few suggestions may be made.

1. When possible, the school year should be divided at least once so that promotions may be made at least semiannually. In very large city schools, promotions can be made three and even four times a year. It is, however, nowhere desirable to assign a teacher less than a half year's work,—that is, to have more than two "grades" to a year. There may be cases, indeed, where large schools should have their teachers stay two years with a class, covering four half-year "grades" with each set of pupils. This, of course, is a common practice in small schools where the employing representatives of the people have the good judgment to keep good teachers year after year for many years, meeting offers of higher salaries to go elsewhere by raising the salaries after success has been clearly demonstrated.

2. Each grade teacher should be encouraged to learn by personal observation both the work of the grades



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above and below his or her own grade and also the proficiency of the pupils in the next lower grade in order that he may be a competent adviser in these questions of grading and promotion in doubtful cases. We need to rid ourselves of the notion that any class-room or "school"<sup>1</sup> is any one's private domain whose possessor may exclude all others; and we need to get the notions that to have visitors and counsellors is a privilege and that to welcome them is both a duty and an honor. With right-minded teachers and with nearly all pupils, these occasional inquiries with brief visitings tend to create incidentally a highly desirable school spirit. The publicity of the school began with the English Channel and Magna Carta.

3. Whatever be the size of the school, from each class there should be both promotions and demotions at almost any time<sup>2</sup> when the teachers concerned think that the changes would benefit the pupils. No doubt, demotions should be rare, for they usually indicate errors in promotion; but when rationally justified, upon consultation with the parents, they should be enforced. This is not to advocate meddling regradings at any and all times, but it is to advocate constant attention to the proficiency of the pupils. Obviously, such promotions and rare demotions as are here proposed will occur more frequently in the lower primary grades

<sup>1</sup> For an explanation as to the historical cause whence arose in the South generally and in several other regions the calling of each class a "school" and the absence of any name for the collection of classes, which in the North generally is called the school, see *Our City Schools: Their Direction and Management*, pages 37-42.

<sup>2</sup> There should be no promotions or demotions toward the end of a term; nor when additions of pupils to another room would seriously incommode the teacher there.

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than elsewhere. By the time a boy or a girl has reached sixth grade, his psychical rate, power, retentiveness, persistence, and other qualities will have been fairly measured. In all probability, he is where he belongs.

Even so, however, in any grade during the adolescent period, there may be cases of sudden changes in powers that require adjustment to easier or harder school-duties. Sometimes, it is possible to arrange within the same grade to give the child or youth either more work of the same character or slightly harder work without promoting him, when such a course of action seems to be desirable, or less work or slightly easier, under the opposite circumstances, rather than demoting him. Promotions tend to elate the pupils; sometimes, when the encouragement is undue or when the pupil is by temperament and disposition overambitious or not well-poised, their ultimate effect upon health or character is unfortunate. Demotions tend to depress the pupils; they should never take place save under such circumstances as the following—*viz.*: 1. When the pupil is lazy, deficient, and indifferent and his sufferance in the class has the bad influence of seeming to indicate on the part of the teacher a low standard of requirement. 2. When the health of the pupil suffers from overstrain at tasks beyond his powers.

In respect to all these matters of classifying, grading, and promoting, two other general considerations are pertinent,—relative ages of pupils and the organization of the course of study.

It is a matter of common observation that age is not to be told wholly by count of years. Some boys are older at ten years of age than others are at fourteen.

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Age is a matter of sex,—girls of the same race, temperament and health are always older year for year of life than boys of the same race, temperament and health. Age is also a matter of race. Year for year, boys of the same temperament and health are always older among the Slavic peoples than among the Latin, and older among the Latin peoples than among the Celtic, and again older among the Celtic peoples than among the Teutonic. Year for year, boys of the same race and health are always older when of the speculative, reflective, anxious temperament than when of the motor temperaments. The ideo-motor are older in mind than the muscular motor; and these than the vital corpulent, who are youngest of all. As for health, there is no general rule. Some forms of ill-health tend to keep the mind undeveloped and childish, other forms tend to induce undue maturity.

In respect to age, we may classify our pupils relatively as follows—*viz.*:

1. The precocious.
2. The normal.
3. The altricious.

By *race*, relatively, in respect to age our pupils may be classed in these groups—*viz.*:

1. Latins and Slavs.
2. Celts.
3. Teutons (including nearly all the English in America).

The correspondences in respect to ages are as follows—*viz.*:

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Slavs 4 years=Latins 5 years=Celts 6 years=Teutons 7 years  
Slavs 11 years=Latins 12 years=Celts 13 years=Teutons 14 years  
Slavs 18 years=Latins 20 years=Celts 22 years=Teutons 25 years

In giving these figures, I speak from personal information from experiences such as these—*viz.*:

1. Direction of evening schools with adult foreigners as well as "Americans" from over fifty different "nationalities." In our Eastern cities, we have learned that neither term conveys much information. To illustrate: In one primary class under my supervision, twenty-three different "nationalities" were represented.

2. Investigation of the cases of many thousands of "Afro-Americans," from which I have learned that it is useless to try to estimate the American "negro." He may be half-Portuguese (Latin); or sixty-three sixty-fourths Anglo-Saxon. He is the most inclusive mestizo the world has ever known; in about one case in sixteen, he is a pure-blooded negro. Even so, he may come from any one of a dozen different races and tribes. Most negroes and mulattoes are precocious. Ladinos with much Indian blood are altricious. Quadroons and octoroons are normal, though quicker to develop than Americans of English descent.

By temperament, in respect to age, pupils may be classified as follows—*viz.*:

1. The reflective (with triangular faces): precocious.
2. The nervous motor (with rectangular faces) }
3. The muscular motor (with square faces) } normal.
4. The vital corpulent (with round faces): altricious.

The correspondences are as follows—*viz.*:

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Reflective 4 years old = nervous motor 5 years = muscular motor  
6 years = vital corpulent 7 years.

Reflective 11 years old = nervous motor 12 years = muscular motor  
13 years = vital corpulent 14 years.

Reflective 18 years old = nervous motor 20 years = muscular motor  
22 years = vital corpulent 25 years.

This is not a matter known only to the educational or psychological student; all observers of human nature are familiar with it. Every class-room in America, every assemblage of persons, all experiences of those who have lived long enough to see the life-histories of themselves and of others confirm the opinion that equality of years does not mean equality of mental age, or of physical, either.

By sex, in respect to age, we differ as follows—*viz.*:

Women 4 years old = men 5 years

Women 12 years old = men 14 years

Women 18 years old = men 22 years

Women 45 years old = men 56 years

In the light of such obvious or easily demonstrable facts as these, it is clear why it is necessary to call attention to the danger of purely arbitrary grading of pupils by age, as *e. g.*, saying that "pupils should enter high school at fourteen years of age" or that "a young man should be through college before he is twenty-three." But—"it all depends"! There are indeed several other, though minor factors—*e. g.*, the economic condition of the student, his cultural environment, climate, and local social tradition.

Assuming that the entire course of a professional education is in view, one may set down the range of ages in the various years of the course as follows—*viz.*:

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SCHOOL	LENGTH OF COURSE	GRADE	AGES OF PUPILS
Kindergarten	Two years <sup>1</sup>		4 - 6 years
Elementary	Eight years	I <sup>2</sup>	6 - 8
		II	7 - 10
		III <sup>3</sup>	8 - 11½
		IV	9 - 13
		V <sup>4</sup>	9½ - 14½
		VI <sup>5</sup>	10 - 15
		VII	11 - 15½
Secondary (High)	Four years	VIII	12 - 16
		1st <sup>6</sup>	13 - 16½
		2d	14 - 17
		3d	15 - 17½
College	Four years	4th	15½ - 18
		1st	16 - 20
		2d	17 - 21½
		3d	18 - 23
Professional	Three years	4th <sup>7</sup>	19 - 25
		1st	20 - 26
		2d	21 - 28
		3d	22 - 30

<sup>1</sup> For nearly all children, one year is a long enough stay in the kindergarten; but children should never start primary work before she is five years and six months old or he is six years old.

<sup>2</sup> A study of the statistics of two million pupils shows that in those systems where every child has a kindergarten training, the laggards in First Grade are relatively very few. Where the system has no or but few kindergartens, this upper age limit should be raised to nine years.

<sup>3</sup> Already the dullards have begun to appear. They may later become the best of intellects, but they affect the upper age limit significantly by this grade.

<sup>4</sup> At this point, the naturally precocious begin to manifest themselves in considerable numbers by skipping year grades or half-year grades and then "doing the best work though the youngest in the class," as the teachers tell the fond and pleased parents. It is not always a dangerous sign—in girls. The precocious, unless of exceptional strength, size and health, should be somewhat repressed, though of course not suppressed. Otherwise, the school helps the mind to exhaust the body.

<sup>5</sup> At this point, the really dull and the retarded drop out, lowering the upper age limit. Here the muscular motor can be saved for

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Not less important and even more difficult of exposition is that other neglected factor, the organization of the course of study. For all the work that has been done by serious educators in hundreds of towns and of cities for half a century, our public schools have yet not solved the two great problems of the curriculum, which are, first, at what ages our youth should study each subject, and, second, how many subjects should they take at one stage—that is, in one grade. Technically, the first problem is—What is the *locus* of each study and exercise? We must solve this before we can solve the second problem. Each of these problems is out of the control of the class teacher in any system of schools. Even rural teachers in the simple district school cannot do as they choose in teaching subjects.

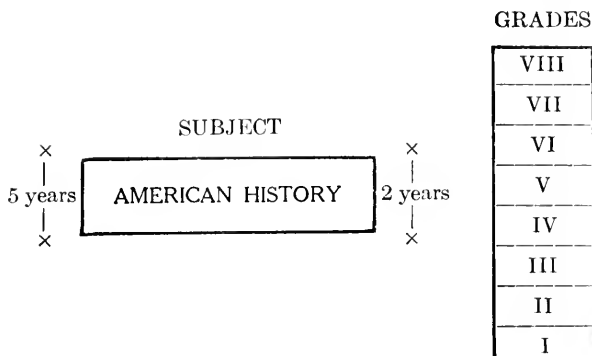
The problem may be illustrated by examples, of which I choose three—*viz.*: American history and handwriting in the elementary school, and geometry in the high school—*i. e.*, an informational study, a psychological drill-exercise, and a logical study.

schooling only by handicrafts taught faithfully. From this point on, our schools, keeping as they do the nervous motor and the reflective and losing the vital corpulent and the muscular motor, no longer reflect the average condition of the American people in respect to temperament. Also by this time, the prematurity (racial precocity) of the Slavic and Latin stocks has drawn most of them into the working world.

<sup>6</sup> High schools should now have only five-year and six-year courses. Their work is typically overcrowded and too compacted.

<sup>7</sup> In college and professional school, we have many students who have gone forward discontinuously. It would be a good thing for girls if they were required to stay out of school one full year in every quadrennial period of their education. Such is my own course with several daughters.

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We may do, in reason, some twelve different things with this situation. Here are four of the twelve—*viz.*:

1. We may teach American history for five years, in Grades IV to VIII, inclusive. This is not seldom done.
2. We may teach it for three years, in Grades VI–VIII.
3. We may teach it in Grade IV and review it again in Grade VII—a two years' discontinuous treatment.
4. We may teach it only in Grades V–VI.

I. The lower the *locus* of the study, the easier we must try to make its content.

II. The longer its *locus*, the more complete may be its treatment.

III. A false *locus* betrays the true philosophy of any subject.

My opinion is that the true *locus* of American history is  
 (a) in Grades VII–VIII, with pupils of the ages assigned above (page 222);

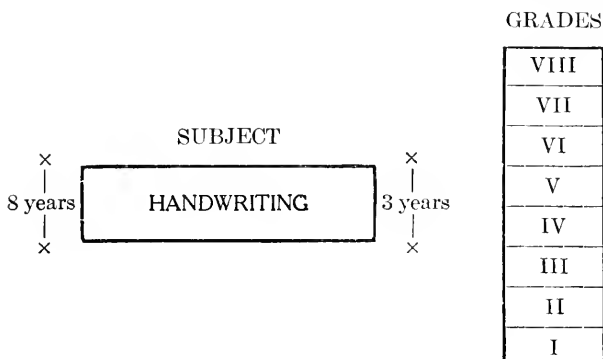
(b) daily for a forty-minute period.

This, of course, is above the compulsory age-limit of most States; but that age-limit should be sixteen years



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of age, with a dollar a week per child from the public funds to help widows bring up fatherless boys and girls.



Here again we may do many different things. I venture again an opinion as follows—*viz.*:

(a) The formation of letters should be taught in Grades I and II, daily, for a twenty-minute period.

(b) Systematic daily drill in handwriting as an art should begin in Grade IV and continue through Grades V and VI.

(c) The boy or girl who has not then learned to write well should be forgotten until puberty is well established, when cross-heredity may give better nervous and muscular control; and

(d) The subject may be taken up as it were *de novo* in the first and second years of the high-school course.

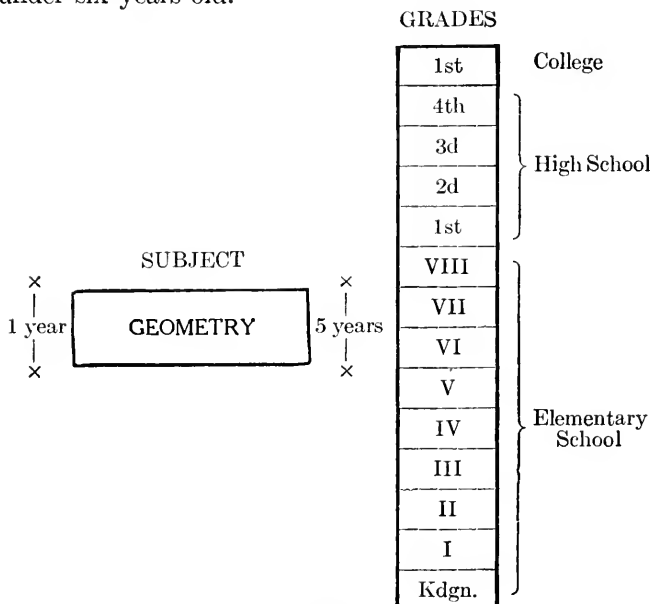
In the early adolescent period, good handwriting is often broken up forever; but I do not recall a case where a boy at thirteen years of age or a girl at twelve years who could not write well learned how to do so in the next two years. The drill-period for most boys is from nine

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to thirteen; for most girls, from eight to eleven years of age.

In other words, we now spread handwriting too generally and too thinly through the course. As a special exercise, it should be concentrated in three years. Though I do not deal specifically with arithmetic or geography in this treatment, I entertain similar opinions regarding their pursuit.

The *locus* of geometry has been shifted up and down the scale of the grades, up and down from top to bottom, several times since Euclid discovered its nature and first propositions. In one form, Froebel placed it in the kindergarten, though not a kindergarten for children under six years old.



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At present, many of "the progressives" propose to place some geometry in the kindergarten, some in Grade VI or VII, more in the second year of the high school, and the rest in college. The present "conservatives" would force it all into the second high-school year. Some educators for decades have been placing it in the first year of the high school before algebra.<sup>1</sup>

The question of what is the true *locus* of any school subject is a matter of fact, to be determined by psychological experiment and pedagogical verification. My own opinion is that for educational uses we have differentiated arithmetic, algebra and geometry too sharply and have integrated them too completely and that what we now actually need is elementary mathematics for our grammar grades and first and second high-school years. But wanting in current practice such a logical order as will put the topics of arithmetic, algebra and geometry in their true rational relations, I incline to the view that arithmetic now has too low a *locus* and too long a range in our elementary schools and that what we know as geometry should occupy one and a half years in the second and third years of our high schools.<sup>2</sup>

The second of the great unsolved problems of the organization of the curriculum is how many subjects should be assigned to each grade. This is a special problem in

<sup>1</sup> In 1878, in the public schools of the city of Dayton, under John Hancock, a famous educator of that period, as superintendent, I studied and finished algebra in the Seventh Grade and studied geometry in the Eighth Grade. None of the pupils of my class had any serious difficulties with either subject. The average age of the pupils of that class was eleven years in the Seventh Grade. I cite this merely to indicate that it is unsafe to say of such pedagogical propositions, "It cannot be done."

<sup>2</sup> For a course of study, see Appendix IV.

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application of the Aristotelian principle of the "golden mean." On the one side, we have the child who is to make his growth and to live his own life as an individual. On the other side, we have a great and a complicated society ever growing greater and more complicated. It is dangerous for one to go into that society poorly equipped in knowledge and in training. It is perilous for society to receive one more individual poorly equipped. It is pretty well agreed now that the school curriculum is overcrowded already. It is likewise agreed that our school "graduates" commonly know rather less than they should know before entering upon their life-work. The first consideration requires change by omissions in the course of study: the second requires change by additions. The situation is worse than a dilemma: it is a battle between opposing forces.

It may help somewhat to say that perhaps age as a factor may be important. Perhaps we should favor the child in the early stages of education and society in the later. Perhaps a better professional knowledge of the temperaments of children and more skill in teaching may help somewhat. Perhaps we squander time in teaching the motor boys to be efficient—they are efficient naturally; the vital to be good and kind—they are both by birth; the reflective to be careful—which they cannot help being. Certainly some of us squander time in teaching badly subjects of which we know too little and exercises in whose technique we are seriously deficient. But even so, we have not done enough to clear up this difficulty and to bring the individual himself and the social requirements as expressed in the course of study into a harmony that properly unites both. Frankly, the problem is beyond not

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only class teachers, but at present our educationalists also.

A few suggestions may, however, help practical class teachers in a measure.

I. The apportionment of material from the several subjects of an elementary or secondary school course is seldom just in all details. When it is unfair as between the grades, the class teachers may persuade the higher authorities to readjust the apportionments. To be specific: I. Generally throughout the land, too much work is assigned to Grade I, especially in number (arithmetic). There are many, very many, "Advanced First Grades" that really should be called "Grade II." The test is simple and final. Given two periods of twenty minutes a day, how much work in numbers can a class of thirty-five pupils aged six to eight reasonably do in one year? This means that all except the feeble-minded and the lazy are to pass,—all of them. My own opinion is—Maximum, the number 12, preferably 10; and counting to 100.—All the work to be dramatized. Minimum,—which I consider entirely reasonable,—counting to 12, no dissection of any numbers at all.

II. Generally, in order to prolong the subjects of the elementary course through all the grades there is a deal of what, closely considered, is scarcely else than "marking time" in them because the pupils for want of intellectual development are incapable of rapid progress. Intellectual development is itself a tricksome phrase; but it has meaning enough when closely considered—it is that thing which in properly constituted individuals is the result of normal physical and psychical growth in combination with suitable educational advantages. By no means all the progress in intellectual power to be ob-

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served in the normal child between his condition at entrance to kindergarten and his condition at graduation from grammar school is due to the school, for some of it, despite the naïve assumptions of his teachers, has been due to natural growth.

2. When the directions of the higher authorities are not so detailed as to make the two following suggestions impracticable without violation of such directions, we may ease the daily work in a measure, first, by omitting some subjects for a term and emphasizing other and then emphasizing the omitted subjects and dropping others for a time, and, second, by having somewhat different programs for (say) Mondays and Thursdays from those for Tuesdays, Wednesdays and Fridays.<sup>1</sup>

To illustrate:—The course of study may call for so much history and so much geography each year; but it may perhaps be permissible to take the history for one half of the year and the geography for the other half.

Again:—The course may call for drawing and manual training each term; but in such case it may be permissible to give the drawing three days a week and the manual training for two days. Such are two possible applications of the principle.

3. The class, even though properly graded, may be divided into three or four groups for recitation, study, construction lessons and other purposes. In some cities, in lower grades it is the universal practice; and not infrequent in the higher grades. Whether it is desirable or not depends much upon the temperament and technical training of the teacher. That it promotes the welfare of peculiar children is certain.

<sup>1</sup> See pages 123, 140, 141, above.

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4. In almost any class, there are some children who are unusually proficient in some subjects and yet almost correspondingly deficient in others. Unless the higher authorities have been unduly detailed in their prescriptions, the class teacher may so vary the programs of individual students as to permit them to put their strength where it is needed. To be specific: A girl in Grade III actually reads well enough to be in Grade VI, but is poor in arithmetic. Let her take four of the five reading periods a week for extra study upon arithmetic. Or a boy in Grade V is good in arithmetic, but poor in spelling: let him omit two or three lessons a week in arithmetic for a time in order to give extra study to spelling.

In general, for the entire situation, I heartily indorse the practice of giving to every pupil in school at the least one-third of his time daily to study and to the preparation of lessons and to every teacher one-fifth of his or her time solely to the supervision of the pupils in individual study. To put the matter otherwise: Instead of trying to give to the pupils as many hours of recitation and of exercises daily as possible, try rather to give them at least one-third and preferably one-half of the time daily to study. Where classes are divided into several groups, this is easy of accomplishment.

Even if we must overcrowd the curriculum for the school considered as a whole, let us not overcrowd the individual pupil. How to organize our school courses so as to avoid the former offence to a sound applied psychology, may be a problem for philosophical educators; but the latter problem is the business of every practical class teacher. Short hours and high pressure is the new educational order; but it must

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not mean defrauding the pupil either of his right to prepare his lessons at school and to review them at school, or of his right to pursue at each stage in his education a few and not a multitude of studies and exercises.

Intellectual confusion is too high a price to pay for enlightenment from too many directions at once.



"We should therefore see if it be possible to place the art of intellectual discipline on such a firm basis that sure and certain progress may be made. Since this basis can be properly laid only by assimilating the processes of art as much as possible to those of Nature, we will follow the method of Nature, taking as our example a bird hatching out its young; and if we see with what good results gardeners, artists, and builders follow in the track of Nature, we shall have to recognize that the educator of youth should follow in the same track.

"Nature observes a suitable time.

"Nature is not confused in its operations, but in its forward progress advances distinctly from one point to another.

"In all the operations of Nature, development is from within."—COMENIUS, *The Great Didactic*. 1649.



## CHAPTER VIII

### HOW TO MAKE A GOOD SCHOOL AND A GOOD CLASS

The school as seen by a visitor.—Active attention, absorbed attention, deliberative attention.—Order and decorum of the pupils.—The use of the English language.—Voice.—Condition of the room itself.—School equipment.—Qualifications as seen by systematic observers.—Aims of the good class teacher.—The school spirit.—Interest of each pupil in his own welfare: self-activity.—The school neighborhood.—The financial authorities.—Public opinion.

**I**N order to have a good class, three things are always requisite,—an ideal, an intention to realize it, and skill. It may help to form the ideal for us to consider how others judge classes.

There are several degrees in which one may discriminate regarding teachers. The first is by looking in upon their classes. The second is by periodical visits to the classes, staying long enough to see the work in process. The third is to observe systematically for a considerable length of time the later history of the pupils.

It is a safe opinion to venture that in nine cases out of ten a skilful supervisor's impression of a class will be borne out substantially unchanged,—save as the class changes,—by a series of visits fortnightly or often for a year, and that his greatest disappointment will be in case it does not change for the better, and that upon his first visit, from the relation then discovered between the teacher and the class, he will be able to predict the

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future record of that class. The excellence of skill indeed is, given unchanged factors, in the certainty of its prediction. Conversely once in ten cases, the single observation will prove erroneous. It may have been too favorable or too unfavorable. Hence in about nineteen cases out of twenty, the single observation is as favorable as was fitting. Once in twenty cases, it was not favorable enough. Unskilful supervisors and laymen make many errors upon single observations, though seldom against the teacher. In other words, when a layman or an unskilful supervisor reports, after one brief visit, that a teacher is incompetent, he is seldom wrong; but when he reports favorably, he is much more likely to be wrong.

It is also a safe enough opinion that a skilful supervisor's annual report regarding the work of a teacher in a class that he has visited (say) fortnightly for a year, staying in all at least ten hours in the room, would not be challenged once in a hundred cases by any committee of supervisors making a drastic examination of the teacher's work because of that report. Less than once in a hundred cases, he will report erroneously; but he is just as likely to be too favorable as too unfavorable, so that scarcely once in two hundred cases is a skilful supervisor's annual report on a teacher too unfavorable and therefore unfair.

Teachers also in their views of supervisors are just as likely to be lenient as to be censorious.

And it is a safe enough opinion that after a teacher has taught in the same neighborhood five years, the professional opinion entertained of that teacher will be the same in nearly every case as the opinion of the great majority of the parents and citizens. I am speaking

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now solely of class teachers, not of supervisory officers. I have had over three thousand different teachers under my official observation; I have investigated the records of several times as many more; and I do not recall ten instances where the professional opinion regarding an experienced teacher differed materially from that of a majority of the lay-observers of that teacher. As superintendent in four different cities, I have known but two cases where the general opinion of the citizens regarding the experienced class teachers was materially different from that of the supervisory officers. In both these cases, professional opinion proved upon later developments to be right, and public opinion wrong; and in both cases, the public were too lenient, mistaking in one instance physical force for moral power and in the other pretentious affability for constant scholarship. Leniency to teacher or to supervisor is, of course, a wrong to the pupils. And censoriousness is a wrong to the educator.

It appears that since the critics are usually right, perhaps the criticized may benefit by learning beforehand by what criterions the professional and lay-critics judge.

Taking first the half-hour visit, let us note seriatim what the skilful observer seeks to discover.

1. Upon entrance to the room, one notices the air of the pupils and of the teacher. This "air" is a matter, in the main, of the attention that is being paid by both pupils and teacher to the work. There are three kinds of attention. The first is *active attention*,—listening, seeing, touching. In part, it represents usually the activity of the "special senses,"—seeing, hearing, touching, smelling, tasting. But it represents also the direct activity of the mind aroused by and considering the

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things brought before it by these senses.<sup>1</sup> The second is *absorbed attention*, commonly known as concentration, and usually in evidence when one is interested in the work at hand. In such a case, no attention is being paid to what is going on around the worker, who is "lost" in his task. The third kind is *deliberative attention*, when one is thinking upon something in consciousness.

A visitor should expect to discover from their countenances, attitudes, and manners *active attention* on the part of the students, should the teacher be giving instruction or conducting a recitation; *absorbed attention*, should they be engaged in lesson-study or upon the performance of some assigned exercise; and *deliberative attention*, should their duty be to think something over.

The opposite of these modes of attention are (1) no attention at all, but sheer passivity; (2) dissipated attention, with eyes for everything and yet for nothing; and (3) misdirected attention, more commonly known as "mischievousness."

2. The visitor notices the general order of the room and the decorum of individual pupils. Order does not necessarily mean stillness; but it does mean something less than noisiness. It means progress from one item of the matter under consideration to another; it is the opposite of confusion. It may not mean silence; but it does not mean whispering,<sup>2</sup> note-

<sup>1</sup> This, of course, is not to be taken as asserting the limitation of the senses to five in number. For the locations and nature of our 40,000 "special" senses, see Titchener's *Outlines of Psychology*, page 67. For the educational significance of sense-life, see *A Theory of Motives, Ideals and Values in Education*, Chapter XI, "Intelligence."

<sup>2</sup> Whispering is a technical school offence,—it is speaking to another pupil without general or specific permission. How much communication between pupils, a teacher should permit depends

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writing, and an undertone of voices, with strange signalings and eye-winkings. It does not necessarily mean all the pupils doing uniformly the same things at the same time; but it certainly does mean that each pupil is doing with appropriate quietness the thing that his teacher wishes done. It means that reason is in control. In an elementary or secondary school, order means obedience to the rules as expressed and enforced ultimately by the teachers.

3. The blackboard will be noticed. Good teachers have blackboard work appropriate to their grades. Their own blackboard instruction is legibly and neatly written; their handwriting is neither a scrawl nor a flourishing scroll, but a fair model. Much of the work on the blackboard will be that of the pupils; and while no reasonable visitor will expect perfection, he will expect to see evidences that the teacher tries to secure careful writing from the pupils. The notion that unless all pupils do excellent work the teacher is incompetent, springs from the false assumption that the order of a teacher is the equivalent to performance by the pupils: it is in short the denial that education is a process requiring time, going forward by stages, issuing from internal endeavor, and only eventuating at the end in the faithful and congenitally normal pupils in the degree of perfection desired.

It is perhaps expedient to note here that the blackboard is rather for exercising the powers of the pupils than for displaying the accomplishments of the teacher in writing and in drawing. It follows that while in

upon many considerations. But in general, let us remember that inhibition is a large part of education because it is a condition coincident with concentration.

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lower grades some blackboard illustrations by the teacher are desirable, even in such grades most of the space should be used daily by the pupils.

4. The visitor will probably notice the orderliness of the teacher's own desk, and the neatness and appropriateness of his or her mode of dress. Mere newness or richness of attire is not the desideratum, but on the contrary may be objectionable as attracting undue attention. Simplicity, durability, ease of fit, a texture that throws off dust or else washableness of the fabric, and dignity or harmony of cut and of color are the desiderata.

5. The cleanness of the room is likely to come under the eye of the visitor. Of course, in graded schools there are janitors, and often janitors are appointed from politics;<sup>1</sup> nor are they appointed by the teacher. But a good teacher usually finds a way to persuade or to compel the janitor to keep his or her room clean,—usually, not always, for in the conditions prevailing in some American communities, the janitors are sometimes both indifferent to their real business, which is to keep the school-house clean, and too sure of their positions to care what the teachers think and say of their services. In some district schools, the teachers are also janitors; in which case, they should keep their schools clean as a duty quite as important as teaching well.

On the other hand, there are teachers whose rooms are always littered with papers or pieces of chalk; where rags for wiping pens and for cleaning the brushes used

<sup>1</sup> This word has come to include every quality other than a sincere desire and a proper method to secure the best person for a position, the best plan for an enterprise, the best means for the end rationally and morally proposed.



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in color-work are hung on the school desk-irons; their books are lying "every which way" in the book-closet, where the pupils' caps and coats, hats and cloaks are anywhere but in the wardrobe; and where the visitors' chairs are broken; and yet where the janitors are excellent men, constantly protesting to these very teachers to take more pains in these matters.

6. The visitor is likely to note many other items,—such as the even or uneven drawing of the shades, the mode of greeting as he enters, the mode of enduring his presence, and the mode of greeting at his exit. These items are relatively perhaps not important; but they affect his general opinion. A well-controlled class is not likely to pay much attention to the advent, presence, or departure of a visitor; and a socially experienced teacher will be friendly yet not only at ease but also not unduly concerned at the visit. A public school is indeed public; even our private schools in America are usually open to visitors. It is now the better approved course not to train the pupils to give a general greeting to casual visitors, but to expect them to proceed quietly with their tasks.

7. In staying a half-hour, the visitor is likely to note many of the following features of the educational process in that room—*viz.*:

I. The style of conducting the recitation. (a) Whether the instruction, whatever be the method, holds all or nearly all the pupils greatly interested. (b) Whether the lesson makes steady headway to the appointed goal. (c) Whether the teacher is disconcerted either by the ignorance or mistakes of some of the pupils or by misconduct.

# CLASS TEACHING AND MANAGEMENT

## GENERAL PRINCIPLES APPLICABLE IN ALL LESSONS

1. Call upon each pupil in each lesson at least once.
2. Give one who fails, if possible, a second question.
3. Help the one who is likely to fail; but do not tell the answer until his curiosity is thoroughly aroused.
4. Except in reviews, ask questions promiscuously.
5. In reviews, it is permissible to go around the class by rows and files or alphabetically or in any other order.
6. Ask the inattentive pupil an unexpected question.
7. Usually ask the question before naming the pupil who is to answer it.
8. Require nearly all answers in complete sentences.
9. Avoid asking questions of those who know the answers.
10. Ask questions of such a nature as to induce the pupils thereafter more and more diligently to study their lessons.
11. Often get various answers and compare them.
12. In some subjects, at times, let some pupils do black-board-writing while others write at their desks and still others recite.
13. Try to develop pupils at their weak places, but do not persist in this to the point of discouraging any.
14. Do not allow the questions of the pupils to hinder or to sidetrack the progress of the lesson: answer such questions at another time.
15. Use new material, not in the books, and original illustrations.
16. Require erect positions and distinct speech.
17. Develop the originalities of each pupil.
18. Talk to the pupils, imparting knowledge; but do not talk too much. Let them do most of the talking.
19. Leave no points of difficulty untouched; but sometimes ask pupils to think about a question for to-morrow.
20. Never publicly praise individual pupils or censure any, beyond pronouncing answers right or wrong.
21. Shift from the original predetermined plan only when sure that to do so will be more helpful to the pupils.
22. Aim to teach mainly the middle third of the class rather than the upper or lower third; but neglect none.

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II. The style of passing from one recitation to another or to recess. Quietness yet promptness is the ideal. The pupils should know what to do, and do it.

Whether there be signals on the bell or mere words of direction matters little.

III. When the visit is at recess or before or after school, the visitor is likely to notice both the manner and executive ability of the teacher in the direction of the movements of the class and in the degree of promptness, of orderliness, and of general courtesy one to another displayed by the pupils in their movements.

IV. The teacher's command of the subject-matter of the lessons and skill in instruction,—whether this be in reading or in drawing or in Latin or in shop-work. Of our teachers, we expect adequate scholarship and satisfactory technique. Errors by the teacher in matters of fact, ignorance of or failure to understand essential principles, and clumsiness in the physical exercises are all unfortunate in the eyes of adult visitors, however blind the pupils may be to them.

V. Though the visitor himself be no expert in the use of words, he will probably be a sharp critic of the English of the teacher. It is not fluency so much as facility and accuracy that are required of the teacher. There is scarcely any one other quality of the teacher to which the general public is so sensitive as to his language-power in respect alike to grammar and to rhetoric, to the tones and pitch of the voice and to the excellence of articulation.

Teachers who are deficient in English should themselves learn memoriter smooth English prose, daily, until their thought is organized in the habit of clear and smooth oral sentence-making. They do well also to

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learn for oral recital, if only in their own rooms, good passages of both prose and verse, in order to train their vocal organs. For some teachers, this is a hard discipline; but the very hardness of it shows the need. Could such teachers hear themselves, should they have phonographic records made for later reproduction, they would be eager to correct their own utterance, however hard the labor. The teacher should speak distinctly, quietly, not monotonously, and with genuine interest in what he says.

VI. When the visitor happens to be in the class-room upon an occasion of an infraction of discipline, he is certain to note the mode and the device of correction and the temper of the teacher in making the correction. It is an absolutely invariable rule that

*A good teacher is patient and calm and kind* under any and all circumstances. In my own experience, I have known (a) a principal to be struck with a stiletto that drew blood, (b) a woman teacher to be seized by an insubordinate boy who attempted to strangle her at the throat, and (c) another woman teacher to be knocked down and jumped upon by a boy so terribly enraged that the other pupils were afraid to try to rescue her. In each case, the teacher was absolutely right from beginning to end throughout the affair. (a) The boy attacked the principal under orders from criminals who had been offended at his activity in trying to clean the neighborhood of certain nuisances. (b) The boy was subject to epileptic fits preceded by great nervous disorder. (c) The boy was a congenital criminal. It may perhaps be asked whether the teachers should and did resist. Certainly; but in resisting, not one "lost his head" or was other than patient, calm and kind. It is

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perhaps needless to add that each of these cases was accorded a proper punishment,—*viz.*: (a) the reform school; (b) suspension until recovery of health; and (c) expulsion from school with assignment to a probation officer. It is significant indeed that when three persons can so conduct themselves under terrible danger as well as outrageous provocation, other teachers will act otherwise even in respect to relatively trivial matters. Acting otherwise than calmly and considerately is, of course, the sin of unreasonable action by man, whom God means to be the reasoning creature. An ecstasy of anger or of fear may be the fact that causes the sin, but it is no excuse.

This principle may be stated negatively—*viz.*:

1. Do not raise the voice to loud tones in giving reproof.
2. Never strike any pupil at any time in the presence of the class beyond the extent of resistance.<sup>1</sup>
3. Do nothing that you may later regret: keep cool.
4. Never use sarcasm, never: it is worse than a blow.

By observing these principles, the teacher keeps the public opinion of the class upon his side, an enormous moral advantage.

VII. The visitor cannot help seeing the personal relations that exist between the teacher and the pupils. (a) There is a general personal relation between the teacher and the class as a whole. This should be that of a friendly superior assisting friendly inferiors: it is not a relation of equals, nor should there be any humbleness or deference toward the pupils beyond a considerate hearing of their ideas. A good teacher, though always

<sup>1</sup> See Chapter VI, pages 146-164, as to corporal punishment.

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sympathetic with individuals, is always a little aloof from the class considered as a whole. Some time ago, I had a singular instance of the effectiveness of this quality of loving but impersonal superiority. A highly educated man of long teaching experience was assigned to a class of a grade with pupils averaging fourteen years of age. Day by day for four months, despite all his efforts, their conduct grew worse and worse. A woman much younger, scarcely half his weight of body, and a foot shorter, was transferred to the class. Two days later, she reported that she "never had a better class": it was her seventh year of experience. Next day, I visited the room. The "secret" was on the surface. She had won the respect of the pupils not by asking for it, but by assuming a quiet composure that must have come hard the first day at least. Later, I found upon inquiry that she had simply ignored the doctrine of punishment that first day and calmly proceeded to "teach school" despite actually insolent interruptions both by word of mouth and by free moving about the room. This procedure of hers fascinated the attention of the pupils and her own self-command won their admiration. A few days later, the transfer of a single boy out of the room to a class where he had no friends completed the entire affair of reducing that disorderly room to excellent conduct.

(b) There are also personal relations with each and every pupil. Here two rules apply. I. Have no favorites. II. Never nag: send no children to Coventry. If there is to be any social taboo of bad children, let it be on the part of the other children. By observing these two rules, the teacher gets the approval of the class as a whole, which is the best sanction for all discipline.

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Once, on a school ground, I heard three boys tell another boy,—“Say, quit bothering teacher. She’s the best teacher in the whole school, and you know it.” It is unnecessary to tell the rest of the story: that boy knew his line from that minute, and he walked the line.

How far the teacher should go in helping individuals depends upon many considerations. A readiness to help each one is quickly known among the pupils; but there is a certain overconscientiousness on the part of some teachers that unduly taxes their strength. Here, as in all practical applications of principles, one must find and follow “the golden mean.” Too much helping of individuals weakens them and wearies the teacher; not enough alienates the pupils and hardens the teacher’s heart and conscience. The right amount of individual attention depends (a) upon the grade and the school, (b) upon the number of pupils, (c) upon the health of the teacher.

This works out as follows—*viz.*:

(a) Little children require frequent help upon small matters, while larger ones require occasional help upon great matters. (b) The larger the class, the less of individual help should be attempted. One must consider the scale of one’s effort. (c) A vigorous young teacher can do more than a less hearty and older teacher. The criterion is—never do so severe a day’s work as to be incapacitated for standard work in class the next day. This is not only to advocate the right of the teacher to life and health and the joy of labor—which may be denied by the undiscerning. It is to advocate also the right of the class as a whole to an honest, helpful year’s work, from a patient, healthy, cheerful teacher.

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VIII. The visitor is likely to note the ventilation and temperature of the room, the amount of light admitted by the windows and shades, and the manner in which the teacher excuses the children who desire to leave the room. None of these matters of sanitation, lighting and hygiene is entirely within the control of class-room teachers; and yet all so concern the health of children and youth as to demand attention here.

(a) Ventilation.<sup>1</sup> Every school-room requires a complete renewal of fresh air at least every eight minutes. This can be secured only by ventilation forced by fans or in part by fans and in part by heated exhaust flues. But where there is no system of ventilation, the teacher can have frequent calisthenic periods when the windows should be thrown open and the air changed while the pupils are taking exercise. In case that any windows are left open, it is important to see that no drafts come directly upon the children.<sup>2</sup>

Even in rural school-houses, fair ventilation can be secured in winter by ventilating stoves, of which there are now many kinds upon the market. These deliver the heat evenly over the entire room and use actually less coal than the ordinary stoves that superheat the parts of the room near them, while the remote parts are cold.

Every school-room should have exhaust flues opening near the floor to take out the foul air. It is indeed

<sup>1</sup> For a complete discussion of the equipment of the class-room, see *Our City Schools: Their Direction and Management*, Chapter V.

<sup>2</sup> Sometimes in new and admirably ventilated school-houses, the inlet flues blow directly upon the pupils or upon the teacher, in which case an immediate remedy for deflection of the air should be provided by some appropriate device, familiar enough to school-house architects.



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often difficult and sometimes impossible to persuade rural school communities to ventilate their schools; and yet even in the country districts in many parts of the land great progress is now being made.<sup>1</sup> Teachers everywhere should understand that air once breathed is no more fit to be breathed again than is water once drunk fit for drinking. Such air is deficient in oxygen, loaded with carbonic-acid gas, and foul with organic matter.

(b) Lighting. All the light in a school should come from one side, preferably the left side of the children's desks. Sometimes even so, too much light enters. There should be two shades upon each window at the center—one to roll up, and the other to roll down. A competent teacher will keep the shades from hour to hour properly adjusted to the pupils' needs. Especial care should be taken to avoid the glare of too much light upon the desks and the blackboards. When there are windows in front that the children must face, these should be heavily shaded.

A front light is worse than a cross-light. Both front light and cross-lights cause eye-strain, headaches, and nervous ill-health—even in country children. Sometimes, the boy "doesn't like school," not knowing why, when the real fault is not in himself but in the lighting of the room.

Even in country districts, a tactful teacher can sometimes persuade the committee or board to close up badly located windows and to open better ones.

(c) Toilet necessities. The good teacher knows that younger persons require to visit the toilet at more fre-

<sup>1</sup> Especial attention may be called to Tennessee and to New Jersey, but many other States also are now alive to the situation.

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quent intervals than do adults, and should take such requests as a matter of course. Any comment or even look of disapproval is entirely unbecoming. To the intelligent, it displays gross ignorance.

It is a disgraceful fact that the toilet accommodations of many schools are still inadequate or unclean or criminal for want of total separation of the provision for the sexes, by high brick walls or remoteness and seclusion from one another. The young woman teacher who finds her school improperly cared for in this matter should promptly, vigorously and persistently keep this fact before the minds of the mothers of her pupils until there is complete reform. When she cannot get hearing and support from the mothers, she should appeal to some physician or minister or other veteran leader among the men of the community.

Failing to secure reform, the teacher should find a better school elsewhere. Let her shake off the dust of her feet as a reproach against them. Perhaps later, the rebuke may awake the conscience of that community, as acquiescence would certainly soothe its sleep.

(d) Temperature. Recently in our better school-houses, we have made great progress in heating the rooms, and we are just beginning to learn how to keep the air properly moist. The new standard is this: Temperature, 65° Fahrenheit; humidity, 70 per cent. The art of moistening the air shows that we can save its cost of operation because air at 65° heat and 70 per cent. humidity is as warm to the body as 75° heat and 30 per cent. humidity. This economy is especially worth while in climates with long winters where the outer air often drops to zero and to a condition of dryness that

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at 70° Fahrenheit becomes but 10 per cent. humidity.<sup>1</sup>

Children living many hours in the Sahara Desert aridity of the unmoistened, heated air of a school-room become peculiarly liable to colds, to bronchitis, and to pneumonia.

In rural schools heated by stoves, and in other schools heated by hot air from furnaces, it is easy enough to moisten the air by keeping a pan full of water near or upon or in the furnace. Teachers should see that this is done by the janitor or do it themselves. Where steam-heat is employed, the problem is more difficult. The teacher's own health requires this same precaution.

IX. The professional visitor, though making no longer a stay than a half-hour, will notice during that time the written work of the pupils. And the trained and experienced teacher, anticipating such visits, will make and keep collections of the written work in several subjects and of the drawings and products of the class manual work. A file of forty arithmetic papers upon the same topic tells more than one story—*e. g.*: 1. It shows the proficiency of the pupils in the arithmetic of their grade. 2. It shows how hard a class the teacher has in hand, for when at the beginning of a term some papers are good and yet many are poor, there has been an unfortunate grading, or when at the ending of the term, the same condition is discovered, it shows that the class should have been subdivided into sections, each assigned to work that was suitable to its powers. When all the papers are perfect or nearly so, the work is too easy. When among the papers are those last on the topic, they indicate how skilful has been the review-

<sup>1</sup> See also Ayres's *Open Air Schools*.

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ing. 3. The file of papers shows the handwriting standards of the teacher, and his or her requirements of neatness and orderliness.

X. The visitor is likely to see what extra reference and general books the teacher has at hand for his own use. Every grammar and high school class-room needs an unabridged dictionary, and most of them need also a complete world's atlas. In every room where history and geography are taught, there should be an eighteen-inch globe of the earth. These rooms also need geographical maps and historical charts.

XI. There should be something of a collection of Nature-study objects and of scientific and technical objects,—in short, the beginnings at least of a school museum.

XII. Every class-room needs a small library of books for the pupils' own uses. Five hundred are not too many; but ten or twenty are better than none.

XIII. The visitor may care to look at the teacher's records of attendance and of scholarship.

XIV. The visitor should observe the clothes and shoes of the children,—to see whether they are neat and clean.<sup>1</sup>

<sup>1</sup> In several elementary schools, I have seen boys' and girls' shoe-blackening clubs—membership, one cent; each shine, one cent. To keep it going, there have been two pupil inspectors who have passed through the class-rooms rapidly each morning. They have said nothing; but every Monday at assembly exercises, they report the number each day of boys and girls in each room who made an unsatisfactory appearance. Two cards, to be hung outside the school-room door for a week, are used, one reading, "ROOM No. 1 for neatness," the other "ROOM No. 1 for improvement in neatness." Two pupil managers take care of the blackening-stands. Both inspectors and managers are changed every week. The clubs always show a profit in operation.

Of course, in actual operation, there are some cases requiring tact

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The foregoing are some of the important items to which the visitor of experience will give attention. He who calls periodically will inquire into these matters from time to time and into others that tell him about the educational process that is or should be going forward in the room. He is not likely ever to let the foregoing pass entirely out of his mind, for he needs them in helping him to form a fair judgment upon the total of a teacher's work for a year. These other and more extended inquiries are likely to concern all the matters treated in such a book as this, and many more. They will be intensive,—he will consider the special methods, devices, personal manners of the teacher with reference to the exact work he or she has in hand. When we deal wisely, we deal differently with first-grade children and with second grade, with first-year high-school youth and with second-year youth. Each class has its own problems. His inquiries will also be more extensive than they can be in a single visit,—extensive in two directions: (1) through the year, its progress or failure to progress; (2) the range of the teacher's influence with the class and in the school, the scholarship, and the community relations.













It is possible, therefore, to make but a few suggestions.

Practical class teachers are coming now to see, with all modern educational philosophers and philosophical educators, that sense-training is of great importance.

and kindness; but this is true of everything educational. Free tickets for shines are given to those pupils who cannot pay the cent. One result has been that thrifty parents have required their children to clean their shoes at home. Perhaps it seems a trifling matter; but as between the boy whose clothes and shoes are always clean and presentable and the boy who looks dirty and forlorn, the world usually chooses the former for trial at its work.

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A good teacher is likely to test and to train his or her children in ways indicated perhaps as follows—*viz.*:

I. Visualizing. 1. Write a new word on the blackboard. Erase. Have it written as recalled. 2. Write a sentence. 3. (In higher grades) Write a stanza of verse, or a short paragraph. 4. Write  $\dot{\cdot} \dot{\cdot} \dot{\cdot} \dot{\cdot}$  for example. Erase. Ask the count. 5. Draw     or     or     in various orders. Erase. Ask for reproduction in that order. 6. Make 5''  $\times$  8'' cards, and place various combinations, as  $8 + 11 =$  ;  $4 \times 7 =$  ; grāpè; etc., upon them. Show them in a flash. Ask what they were, etc. 7. Hold an object up for a moment. Hide it. Ask children to name, or perhaps to draw it. 8. Ask number of windows in school-house.

II. Audition. 1. Repeat several figures. Ask verbatim repetition; and answer. 2. Recite a verse. Ask its verbatim repetition. 3. Rap on a desk several times. How many? 4. Rap, rap, pause, rap, pause, rap, rap, rap. Ask for exact repetition. 5. Tell a problem story in arithmetic. Ask verbatim repetition.

III. Memory. 1. Let one child go about the room touching (say) ten different objects. Let others try to follow exactly from memory. 2. Teach a memory gem, perhaps in concert. See who know it accurately. 3. Write on the blackboard an arithmetical process, a spelling list, etc. Next day, ask children to reproduce it exactly. 4. Ask them to tell about pictures in their books, with the books shut. 5. Get historically accurate reports of excursions in the woods.

IV. Dramatizing. 1. Tell or read a story, and let

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children work it out. This is especially useful in history and literature. 2. Dramatize arithmetic problems. 3. Make Eskimo villages, etc. 4. In manual training, build things like real, or actually real.

I have seen seventh and eighth grades, as it were, made new by such exercises as these persisted in for a month. They are indeed especially useful in the lower primary and upper grammar grades. When the middle grades and the subadolescent period have stultified a class of boys and girls, nothing else can quicken them so well as renewed sense-training.

In making a good school that will delight parents and pass muster under the inspection of critics, there are several minor methods and devices not to be ignored. One is to make for each class, from year to year, to supplement the geography work, a portfolio to hold pictures, magazine articles, picture postal cards, newspaper clippings, well-made pupils' maps, good compositions dealing with the lands studied (or in imagination visited), in that grade. In but a few years, there will be several portfolios of great value and of greater interest to the pupils. The same thing can be done in history. One class emulates its predecessors. From this enterprise, the class library of books <sup>1</sup> also grows surprisingly. The children's interest arouses that of many parents.

The folding cabinets to display the work of the pupils in the regular subjects, an occasional school exhibition, a school or class newspaper, written or printed, and an open day for parents are devices often successful.

Another quickening plan is seriously to undertake as a class some representative enterprise, as, *e. g.*, in Grade

<sup>1</sup> Many States contribute funds to school libraries, duplicating each dollar raised locally.

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III, constructing an Indian village, to illustrate Longfellow's "Hiawatha"; or again, *e. g.*, in a higher grade, to make a museum collection of many of the products or manufactures of the community in which the school is. A teacher may do this without accepting in its entirety "the culture epochs" theory of education.

The good teacher will make much of the English work in the grade, by correlating it with the topics of the drawing, geography, history and reading, with written desk and blackboard compositions and with oral reproductions.

He (or she) will give arithmetic verisimilitude by having the pupils get the actually prevailing prices and modes of trade in the community for the problem work; by having the pupils invent many of their own problems; and by dramatizing some of them. In lower grades, a make-believe grocery store is often a happy device.

The spelling should be taught in such a way that the pupils know the use of each word in context, its definition, its appearance syllabicated and solid. This will be taught also in close correlation with good literature.

But it is not within the range of this treatment to pursue the subject of special method whether in Latin or in geometry, in drawing or in chemistry, in phonics or in sewing. Each deserves a book by itself; and indeed several excellent books upon various subjects are already written.

In fine, the good teacher makes the good class by developing its self-activity partly through interest, partly by his own example of fresh knowledge, of a progressive spirit, and of genuine enthusiasm.



“Therefore, that which is to have true, abiding and blessing, instructive and formative effect on the child as pupil and scholar, and as a future active man,—independent employment—should not only be founded on life as it actually appears, should not only be connected with life, but should also form itself in harmony with the requirements of life, of the surroundings, of the times and with what these offer. It should especially have an arousing and wakening effect upon the inner life of the child and should thus spontaneously germinate from within that life.”—FROEBEL, *Education by Development*. 1836.



## CHAPTER IX

### THE CLASS TEACHER AND THE INDUSTRIAL ARTS

The investment of one's own life.—The extension of education.—Its expansion.—Teachers of the familiar subjects.—Preparation for the new subjects.—Agriculture.—The mechanic arts.—The business arts.—Domestic science.—Domestic arts.—Principles controlling social action in reference to educational progress.—The universal school.

THE relation of education to the civilization of its times is always reciprocal: in part, it causes that civilization: in part, it is the effect. Inevitably, here in America, education must take its color and its mood from our agricultural, industrial, social and domestic life. Of the new developments in education, caused by efforts to adjust it to modern American conditions, a few may be suggested.

1. Higher education is going ever higher. The university succeeds the college; and research work succeeds the university. There is no limit.

2. Higher education is constantly increasing in the quantity and extent of its expression. High schools have doubled in the past ten years. Women's colleges are multiplying. More and more universities are being developed. In these institutions, the courses of study are growing ever more numerous. The variety of subjects that may be pursued in one or another department

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of a great university astonishes even those who keep in touch with higher education.

3. Lower education grows in the enrolled number of pupils, in the number of teachers, in the number of school buildings and in costs so fast that all the predictions even of optimists fall short. In the presence of a school system with 700,000 pupils and 18,000 teachers, even the greatest metropolitan university with 6000 students and 1000 teachers seems small in relative quantity. Even our very greatest industrial enterprises are but small affairs compared with the greatest of our educational institutions. We are deceived by the relative incomes of university presidents and of city school superintendents, of college professors and of school-teachers, when cited in comparison with those of corporation presidents and of railroad managers, of factory heads and of bank cashiers into supposing—carelessly—that education is the least serious and the least important of our social enterprises. But consider: there are more teachers in the land than physicians, lawyers, ministers combined. Our schools instruct 20,000,000 youth daily. Of every one hundred of our population, twenty-four go to school. Of our adult population, one in fifty is either teaching school or making something for use in school-construction or equipment. Agriculture and railroading are the only occupations requiring many more workers than education requires. For every woman now teaching school, there are four other women formerly teachers.

This educational expansion creates a demand for two kinds of teachers: those who carry on the familiar subjects, and those who are able to teach the new subjects. Here and there in our country enough teachers are

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available, but in most regions the supply is less than the demand. Like every demand that must express itself in economic terms, it registers itself at a price that fluctuates, of course, above and below a median point and that varies in different localities; but with this limitation, the price is in a sense "fixed" and the demand is certain. This demand is for teachers who know what and how to teach. Being unable to estimate fairly what constitutes a teacher, the public registers its demand for teachers at a price too low to secure an adequate supply. In consequence, taking the country by and large, at least one-half of the so-called "teachers" are not such in reality, either not knowing what to teach or else being without skill in teaching. Also in consequence, one-fifth of the persons engaged in teaching drop out from the work every year.<sup>1</sup>

Not one-third and scarcely one-quarter of our American teachers at present are either college or normal-school graduates. Such is the minimum standard of fitness for teaching. Whatever be the price offered for teaching service by public opinion, the social demand is for really qualified teachers. For many years to come, the supply will be inadequate.

But serious as the situation is regarding regular or ordinary teachers, ready to carry on the routine work and to teach the familiar subjects of education, that in

<sup>1</sup> Statistics do not bear out the assumption that women who cease to teach always do so in order to marry. They give up teaching (a) to help in the homes of their parents, (b) to enter other occupations, (c) to enjoy leisure, and (d) to marry (1) because they find the "pay" too small to warrant the labor and anxiety; (2) because "politics" of one form or another has given them a disagreeable experience; and (3) because they have not succeeded sufficiently well to be happy in the work.

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respect to the teachers of the new subjects is far more serious. These relatively new subjects in secondary and elementary education include the following—*viz.*:

1. Carpentry and other wood-working.<sup>1</sup>
2. Mechanical drawing.<sup>1</sup>
3. Forging and other iron-working.<sup>1</sup>
4. Machine construction.<sup>1</sup>
5. Plumbing and tinsmithing.<sup>1</sup>
6. Harness-making and other leather-working.<sup>1</sup>
7. Agriculture and its several subdivisions.<sup>1</sup>
8. The commercial branches.<sup>1</sup>
9. Shorthand and typewriting.<sup>1</sup>
10. Biology and the other natural sciences.<sup>2</sup>
11. Nature-study.<sup>3</sup>
12. Gymnastics and other physical culture.<sup>4</sup>
13. Sewing and dress-making.<sup>1</sup>
14. Millinery.<sup>1</sup>
15. Cookery.<sup>1</sup>
16. Household hygiene and sanitation.<sup>1</sup>
17. Health-inspection, including anthropometry.<sup>1</sup>
18. Feeble-mindedness.<sup>5</sup>
19. Incurability.<sup>6</sup>
20. Physical deficiencies.<sup>7</sup>

<sup>1</sup> In these several lines, there are even to this time, despite the fact that the work began a generation ago, only a few teachers who are high-school graduates, pedagogically trained, speakers of good English, and apt in the respective specialty: in short, colleagues fit to associate with and to share in the education of youth by "the regular teachers."

<sup>2</sup> Though we have long had chemistry and physics in our secondary schools, and the supply of such teachers is fairly satisfactory, teachers of the natural sciences are but few. But for the law of compensation in professions,—in general, the same return to each and all,—the salaries of the teachers of the natural sciences would be much higher than those of most other secondary subjects. Many high schools do not offer these subjects because good teachers

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The extent of the development in these new lines of educational endeavor may be realized when we note that at Tuskegee Institute over seventy different trades and

cannot be secured—at the standard salaries of teachers of the older subjects.

<sup>3</sup> Here is a subject waiting for admission to the elementary schools *via* the supervisorship, which is requisite for the introduction of all new subjects and for the maintenance of every art. But there are few teachers in America ready to assume supervisorships in Nature-study. For the theory of supervisorships, see *Our Schools: Their Administration and Supervision*, Chapter VII. That class teachers who will fit themselves to teach Nature-study in their own grades well are likely to go forward rapidly in salary is known to every observer.

<sup>4</sup> So rapid is the progress in these two lines that it escapes the observation of most of those who work in them. Calisthenics is working out into the gymnasium, into the athletic field, and into the school-yard. Medical inspection is working into the school from medicine and surgery, and it is to stay there as a necessary integral part of the ordinary school routine. See pages 183-189.

<sup>5</sup> As the direct outcome of better health-inspection, we are opening schools and classes everywhere, as State institutions, as county homes, as parts of our city school systems, for children and youth who are feeble-minded, imbecile or idiot. It may be to some a disagreeable work; but it is in direct line with civilization, which has been well defined by Mitchell in his *Past in the Present: What Is Civilization?* as organized endeavor "by man in society against Nature to prevent her from putting into execution in his case her law of Natural Selection. The measure of success attained . . . is the measure of each civilization" (page 187). To others, it is a rare privilege. At any rate, it is a field where the laborers are few.

<sup>6</sup> In all parts of the land, our cities and towns are establishing classes into which are collected the children who will not or cannot "behave." For them, teachers are required of unusual gifts and preparation. During my term as superintendent in the District of Columbia, twenty-four such classes were established. Competent teachers are too few. See *Our City Schools: Their Direction and Management*, Chapter VII.

<sup>7</sup> These include blindness, deafness, crippledness, and many other sorrows. Each kind of defective requires a specially trained teacher. High talents and fine characters are often discovered by the expert teacher. It is a beautiful and a happy work.

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crafts are taught, and at Hampden some forty. Nearly every great city now has one or more mechanic arts high schools. The movement that began (perhaps we may say) with Pratt Institute in New York (Brooklyn) in 1888 is certain to go on expanding, because we have come to learn that though instruction in a livelihood is not a complete education, there is no education that does not include as part and parcel of its course instruction in at least one livelihood to the point of the economic standard of fitness in its art or craft.<sup>1</sup> There are some twelve hundred different standard occupations followed by the men and women of our land. Of these, of course, by far the most important are those concerned in agriculture. That our high schools should teach these five subjects in their elements,—*viz.*, agriculture,<sup>2</sup> metallurgy, business, garment-making, the household arts,—is a proposition no longer seriously challenged: it has become an educational principle. Our case now involves but two more stages,—getting the money,<sup>3</sup> and preparing the teachers. Strange as it may seem, it appears that the first lags upon the delay of the second. We have at last the inspiration to educate our people for social efficiency, which is one element of a sound public morality, and we have the

<sup>1</sup> See *A Theory of Motives, Ideals and Values in Education*, Chapter XII, "Efficiency," and Chapter XV, "Art."

<sup>2</sup> Abraham Lincoln changed the whole situation in America in respect to agricultural education by signing the bill to establish agricultural colleges in all the States. In his administration, James Buchanan had vetoed a similar bill.

<sup>3</sup> To those who desire a convincing argument, I commend Eliot's *More Money for the Public School*; and to those who desire to know what is actually being done now in the way of preparing teachers, I suggest investigation of the Teachers' College of Columbia University, New York City.



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philosophy to justify and bulwark the inspiration. What we need are the men and the disposition to deliver the means. For in truth, we have the means. We now have an economic civilization that produces surplus wealth.<sup>1</sup> We have \$120,000,000,000 of wealth for 90,000,000 people, more or less. There is an ample surplus for all our educational needs, of which to-day the greatest are these here cited,—the school courses and the teachers.

It remains at this final stage of the treatment of the present subject to consider something of the methods of teaching these several subjects, generally considered, of which each one includes many branches.

Agriculture. This includes chemistry of the soil, drainage, irrigation and rainfall, climate and weather, preparation of the soil, fertilizing, the seeds of the many various kinds of plants, seed-raising, storing, testing, and distribution, cultivation of the soil, harvesting, crop-storing, rotation of crops, orchards, small fruits, cereals, vegetables, flowers, shrubs, horses, cattle, sheep, swine, poultry, stock-breeding, birds, feeding, ensilage, farm machines, tools and implements, butter and cheese making, barns, stables, hot-houses, winter frames, poultry-houses, and other buildings, the employment of labor, marketing, bookkeeping, farm periodicals, experiment stations, veterinary medicine: in short, an entire system of life with its essential arts, crafts, and applied sciences. And yet this system lends itself of necessity to pedagogical methods. It is a system to which an introduction may be afforded by a single teacher in but a year's course of a lecture hour and a laboratory hour daily; and it is a system that a student

<sup>1</sup> See Patten's *New Basis of Civilization*.

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may well pursue for half a dozen years in a secondary school followed by an agricultural college.

Each topic in agricultural instruction has its own typically indicated method. Some topics should be taught inductively; others deductively; others by exemplification exercises; still others in the scientific laboratory. Characteristically, agriculture is an applied science while farming and gardening are arts. One learns to plough by being shown how, by being directed while trying, by trying independently, and then by practise with a critic and without. One learns what fertilizer or reducing chemical or new constituent,—sand, clay, lime, phosphate,—to use upon a given soil partly by physical and chemical tests scientifically made, partly by experimentation outdoors. In this stage of our knowledge of agriculture, one is taught deductively the principles of rotation of crops. We shall make great progress in the teaching of agriculture as soon as our practice in its instruction has been cleared up by due consideration of the principles and methods applicable to its several branches. Empiricism must give way to scientific method in agriculture as it already has given way in so many other fields of education.

As manual training in the elementary schools is the key to the mechanic arts in the high school, so gardening is the key to the agricultural arts. As manual training has its allies in drawing and in physical culture, so gardening has its allies in Nature-study and in elementary science. And as manual training has come into our elementary schools through the special teacher and supervisor, so gardening is coming in through the specialist. We should not expect the "regular class teacher" to "know everything." Upon consideration of the mat-

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ter, we should never have expected one woman to teach each day to forty-five or fifty boys and girls all that they have the power to learn that day. We are bravely outgrowing the notion that a school with fifteen classes needs but fifteen teachers and one with sixty classes but sixty teachers. It took the South a long time to learn that a principal who "merely supervises" is required in every school-house with over three or four hundred pupils.<sup>1</sup> We are now organizing our larger schools with principals and principals' clerks, heads of departments for every twenty classes, special teachers of drawing, manual training, sewing, physical culture, the incorrigibles, the defectives. Several cities already have put into each of their schools a teacher whose main business is to go about helping individuals who are lagging behind: she helps them to pick up "dropped stitches," and she saves many of them from demotions.

Gardening, as a school subject, has its typical lesson method. In order to teach it properly, there are required (1) boxes of soil for seeding; (2) seeds of various kinds; (3) such tools for indoor and outdoor use as spades, trowels, rakes, hoes, all of small sizes for the pupils and a full-size set for the teacher;<sup>2</sup> (4) sunlighted grounds of sufficient size to give at least a plot 4' x 8' to each pair of pupils;<sup>3</sup> (5) such fertilizers and chemicals

<sup>1</sup> See *Our Schools*, page 178; *Our City Schools*, page 33.

<sup>2</sup> For a Grade IV class of forty-five pupils, the outfit should not cost over \$10, and the current cost for operating its garden should not be over \$4.50—that is, 10 cents per capita. The vegetable crops, such as squash, lettuce, tomatoes, potatoes, should make a profit; but the class should grow also wheat, corn, strawberries, blackberries, and the familiar flowers such as geraniums, nasturtiums, dandelions, roses, lilies of the valley.

<sup>3</sup> A maximum plot for one boy ten years old is 6' x 16'. Anything larger than this intensively cultivated will discourage him as a

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as are indicated by the physical and chemical condition of the soil and by the needs of the crops to be grown; (6) water conveniently accessible; (7) a teacher who knows and loves growing things, which are mysterious kinds of silent intelligences and sympathies; (8) ten minutes of time daily all the year, and an hour each week during the planting and growing season.

The term of a course in gardening is usually the duration of the process from breaking up the ground for seeding to clearing it up after the harvest; in practice, we break up the course into topics, lessons, and exercises. This may be illustrated in the case of lettuce.

Topic 1. Telling about lettuce, showing the seeds, and pictures or drawings of the plant.

Exercise 1. Spading the gardens.

Topic 2. Telling about soil preparation, including fertilizers.

Exercise 2. Preparing the window-boxes or the seedling grounds outdoors for growing the seedlings.

Exercise 3. Getting the soil of the garden ready for the seedlings.

Exercise 4. Planting the seeds in the boxes (or in the seedling-plot).

Topic 3. Teaching the history of the plant growth.

Exercise 5. Watering and caring for the seeds and the shoots, including thinning out.

Exercise 5. Transplanting.

school exercise under a teacher's direction. The teacher may have a class plot in his charge upon which he is to be helped by his pupils, almost any area, even as much as a quarter-acre. This is to assume that the class teacher helps the specialist, or does the work, or that a rural school is under consideration. The most common mistake in installing gardening in our schools at present is trying to do too much at the beginning.



VACANT-LOT GARDENING BY PUPILS OF THE CLEVELAND SCHOOLS



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Exercise 6. Cultivation through the season of growth.

Topic 4. The chemistry of growth in an elementary way, including sunlight and chlorophyl.

Exercise 5. Gathering the first large plants and washing them for use: then the next, etc.

Topic 5. Weeds.

Exercise 6. Clearing the ground for another season or another crop.

Topic 6. Rotation of garden crops.

Of course, only a part of the grounds will be given over to lettuce; and while this course is going on, there will be others for beets, strawberries, and whatever else is to be grown. It is desirable to include the two and three year plants like strawberries and blackberries in order to teach foresight and carefulness.

In our city school systems, we have now supervisors of drawing, of music, of manual training, of penmanship, of reading, of Nature-study, of the classes for defectives and incorrigibles, and in one instance,—the District of Columbia,—of gardening, and even consulting psychologists with their assistants. In the District of Columbia, there are over one hundred of such specialists. New York City has an equal proportion, and more wisely apportioned among the subjects. Similar developments are appearing in hundreds of towns and cities. It might be considered invidious to mention any of them by name lest others equally meritorious appear to be neglected. But while hundreds of communities are progressive, other hundreds are not; and some are actually opposed to the notion that boys and girls can get better instruction from several teachers than from one. This opposition is on a plane with the notion that however large a family a mother has, she needs no servant, but

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"ought to do her own work." As a matter of fact, the woman teacher who, without the assistance of any special supervisor, teaches arithmetic, grammar, geography, spelling, elementary science, and manages the class successfully, and who, with the assistance of special supervisors, teaches the class drawing, reading, writing, physical culture, and sewing well may properly be considered an industrious and useful citizen, even though special teachers take the pupils occasionally for instruction in manual training, in cookery, in dress-making, and in gardening. It is not a question whether the teacher has enough work to do so as not to be idling about: it is solely a question of the good of the pupils and of the ultimate welfare of our country through an intelligent, efficient, and moral citizenship.<sup>1</sup>

It is sometimes objected that there is no use in teaching agriculture in city schools. If by teaching agriculture any city boys and girls can be induced to go out into the country and to live upon the bounty of Nature, that will be a blessing to them. The telephone and the mail have done away with country isolation. The prices of farm, garden, and orchard products show that we have not enough farmers, gardeners, and

<sup>1</sup> I met the argument in its crudest form when a board discharged one of three special supervisors, asserting that "when she goes into the rooms, the teachers sit around doing nothing. We don't pay for loafing. We want the teachers to work." When I asked why the other two were retained, the leader replied, "Miss G—— was born here, and has some rights." "And as to Mr. L——?" I asked. The reply was, "He votes." The discharged specialist was "a transient" and "only a woman." But underneath all the apparent situation was the fundamental opinion that, beyond the one-grade one-teacher complement of teachers, all other teachers are "extras." It is childishly crude, but it is a fact. Some class teachers themselves cherish the same opinion.



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orchardists. Life on a good farm or ranch is the best life in the world; here the race of vigorous humanity is maintained; here men and women learn from Nature how in patience to possess their souls; here self-reliant citizens and sympathetic neighbors are reared. Oklahoma did well to put into her State Constitution the provision that agriculture shall be taught forever in all her schools, urban as well as rural.

The one problem of importance in respect to agricultural instruction is getting the teachers. It is to-day the greatest field in practical pedagogy, for like every other subject taught in education, agriculture must be analyzed and reduced to a consistent body of sciences, arts, methods, devices, topics in due order and relation. We shall need many kinds of text-books and many kinds of teachers. Those are indeed ignorant of history and devoid of foresight who do not see that by the year 2000 A.D. self-support on farms and ranches will be the mode of livelihood of a hundred million people in the rich Mississippi Valley, in irrigated regions of the Rocky Mountains, and in drained regions of our Gulf Coast. We are on the edge of new times. A shortage of food-supplies is upon us and will force us back to the ancestral wholesome outdoor life of farmer, gardener, orchardist, forester, shepherd, and cowherd.<sup>1</sup> But it will be a life of social relations and of high personal intelligence, for the agriculturist will be like many another of his fellow-men an applied scientist, the intellectual product of school and college teachers.

**Mechanic Arts.** Many as are the topics visible even at present in the relatively new science and art of agri-

<sup>1</sup> It is, however, not to be forgotten that part of this shortage is due to a sinful system of marketing crops from producer to consumer.

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culture, those belonging in the field of the arts and crafts of industrial life are yet many times more. They include shoemaking and other leather-working; silk, wool, cotton, flax textile manufactures; mining of coal, iron, copper, lead, silver, gold; the working of each of the metals, including jewelry, steel, bronze; lumbering, furniture-making; the making of every kind of instrument and tool and machine, from a water-power turbine plant to a watch; printing and its related arts of book, magazine, and newspaper manufacture; construction of buildings; strength of materials; stone-quarrying; cement-manufacture; road-making; the employment of labor; mechanic arts periodicals.

As gardening is the type of all farming, so carpentry is the type of all mechanic arts. The duration of a gardening course is from seeding to harvesting, while that for carpentry is from collecting the material to exhibiting the finished product. The agricultural process is longer and more complicated, more subject to accidents beyond control and to errors of ignorance, requires patience and faith as well as industry and intelligence; and yet the chance of success in it is greater for the pupil-novice than it is in the case of the mechanical process.

The typical lesson in mechanic arts is distinctly one of exemplification: it is a psychological exercise.<sup>1</sup> In carpentry or bench work as it is usually taught in the highest grade of the elementary school, nearly all lessons are psychological exercises. The few exceptions are nearly all of them of a deductive nature. In all arts, we learn from example and emulative endeavor.

In the pursuit of mechanic art beyond the elementary

<sup>1</sup> See pages 50-54.

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manual training, we must specialize early in order to acquire the technique while young and plastic. The condition of the American mind in respect to mechanic arts is far different from that in respect to agriculture: it is far more complete in its knowledge, more exact, more thorough, more advanced. Scientific method in agriculture is in the making: technical method in the mechanic arts is already established. In them we have a multitude of the skilful; and applied scientists and scientific inventors abound. In the use of the mechanic arts in high schools, we are far ahead of our record in agriculture. And yet we are by no means at the goal that we must attain in order to realize both the full natural genius of our people and a sound philosophy of education. We need more teachers of manual training and of all the arts and crafts that follow. The purpose of manual training (which is a very general and disconcertingly vague term for any and all kinds of exercises whose motive is tool-using or tool-learning) is such organic training of soul-and-body, of eye-brain-hand, of ear-brain-hand, of efferent nerves—conscious ganglia—association areas and plexuses—efferent nerves—as to furnish the youth with aptitude for and interest in mechanic art.<sup>1</sup>

It is a conservative estimate that the school world could absorb within one year ten times as many men

<sup>1</sup> To illustrate the difficulty of getting and keeping a competent special mechanic art teacher.—In the William McKinley High School, Washington, D. C., in 1906-7, in one position alone, there were five different teachers and yet the position was vacant three months in the ten months of the year. Why? As soon as they were appointed, the good men immediately secured better positions (*i. e.*, higher salaries) in practical manufactures, and the others failed promptly for want of proper pedagogical training.

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and women of really adequate preparation for teachers of the mechanic arts as will offer themselves at any time for half a dozen years to come. There is an especial shortage of competent supervisors of elementary manual training. "It is so hard to get a really good man" is the common saying of school superintendents. And without good men at the current prices of teachers' services, we cannot extend our manual and mechanic arts work. We are indeed in "a vicious circle"; we have too few teachers and too few graduates who may return to the schools as additional teachers. But the progressive tendency, nevertheless, is fully established; and a half-century will tell a surprising story not of less literary and classical high schools and courses, but of far more technical high schools and of technical courses in all general high schools.

Just as objection is made to teaching agriculture in city schools because "we don't farm in cities," so objection is made to teaching mechanic arts in rural schools, elementary and secondary, because "factories don't grow upon farms." But we are coming into an age when factories will grow in the suburbs of cities, and when the farm boy with "the mechanical turn of mind" (*i. e.*, of the muscular-motor temperament plus an energetic intellect) will have a fair opportunity in a near-by centralized high school.

Our boys and girls are born in city and in country with various powers, and they should have the corresponding opportunities. Not all who are born in the city are best adapted to factories and stores and offices; not all who are born in the country are best adapted to farms and gardens and orchards. The son of the miner need not be a miner; the son of the lawyer need not be

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a lawyer. We have put away caste. We must put away regional specialization. It is, of course, to some a matter of indifference what they do, whether teach school, run a farm, mine coal or clerk in a store; and these are likely to do all things indifferently well or ill. Therefore, we need to open to all the gateways to all ordinary opportunities,—that is, to many various livelihoods. It is new doctrine quite radical, probably revolutionary; but it has two limitations, not the boy for the sake of the trade but the trade for the sake of the boy, and let the boy (or girl) have, first, last and all the time between, a genuine, broad, optimistic liberal education. The livelihood is incidental, though necessary; the life is an end-in-itself. The livelihood is a means to the life.

Business or the Commercial Arts. These include arithmetic, penmanship, English, bookkeeping, accounting, business methods, banking, retailing, wholesaling, salesmanship, shorthand, typewriting, correspondence, office files, history of commerce, commercial geography, advertising, window-display, clerking, stock-taking, storage, transportation, auditing, commercial law, science of government, supervision of manufacturing, political economy, ethics, real estate, stocks and bond, commissions, life, fire, burglary and accident insurance, taxes, bonding of employes, purchase of materials and of supplies, commercial agencies, savings-banks, employment of labor, commercial publications.

As the key to the mechanic arts is manual training, and to agriculture is gardening, so the key to the business arts is bookkeeping. We may begin our gardening with the ten-year-old boys and girls, and our manual training with twelve-year-old pupils; but we are not

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likely to make much headway in bookkeeping with pupils under sixteen years of age. For it, not only are a thorough knowledge of arithmetic and much skill in it requisite, but there is requisite also a considerable development of reasoning, of judgment, and of general information. Like most arts, when well performed, bookkeeping "looks easy."

A lesson in bookkeeping is essentially deductive in its character, and most of our work in the subject is at the fourth stage of the deductive lesson,—repetition and drill.<sup>1</sup> But after the mastery of bookkeeping and associated subjects, the business arts so increase in variety and in number that in their lessons the use of every kind of pedagogical method is indicated in one or more of the subjects of the course; *e. g.*, the inductive method in the history of commerce; the deductive in commercial law; the exemplification method in typewriting; and the lecture in costs of materials and of supplies.

In one respect, the business arts may be ranked higher than either agriculture or the mechanic arts. A failure in their practical application in life is, in a sense, more serious than a failure in agriculture or the mechanic arts, for business deals with the finished goods made by other persons while agriculture and manufacture produce the goods. In other words, business deals with property in the course of its exchange for other property, usually money, while agriculture and manufacture create the property. Business gets the merchandise in a state just preceding its consumption or other use by customers.<sup>2</sup>

<sup>1</sup> See page 44, above.

<sup>2</sup> Here it is necessary to draw a sharp, well-understood distinction. Selling a wheat crop is not agriculture but business; therefore, a farmer should be in part a business man or merchant. Selling shoes

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The man who fails in raising a crop on his farm can bide his time and raise another. The land and tools remain. Only the seed and the time have been lost. The mechanic who spoils a piece of steel can try again. But the incompetence or "hard luck" of the merchant eats away his capital fast and creates distrust among many men. He stands higher up in the economic structure. His purchases are orders to farmers and manufacturers and control them. Hence, the banker is highest of all in the economic scale, for his loans govern the economic life of a community. Upon the extent of their credit with him, other men rise and fall. And hence again business courses require as students older youth than do courses in even mechanic arts and much older than do agricultural courses; for "good judgment," which involves a considerable familiarity with affairs, is the essence of business success.

All the foregoing has been presented "in a sense"; that is, with qualifications which now appear. Agriculture deals with Nature outdoors; mechanic art with materials usually indoors; and business only with products. A good agriculturist is something of a scientist and much of a Nature student; the mechanic must be something of an artist; but the business man needs only the more common, the fundamental human qualities. Of these, the agriculturist must have deeper and truer relations with and insight into the world whence man has issued and by which he is supported than either of his fellows; he lives the largest life, the most natural and the least artificial. He owes to both the mechanic and the clerk much charity. And the good teacher of any of these

is not manufacture but business; therefore, the manufacturer must understand merchandising.

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lines should bring his students into sincere appreciation of their comparative values and opportunities. Life on a farm is in itself worth while; life in a manufactory may be worth while; but handling other people's products can scarcely in itself be joyous.

The Domestic Sciences and Arts (garment-making and householdry). These include sewing, tailoring, dress-patterns, cutting-and-fitting; purchasing materials and supplies; machine-sewing; millinery; babies' clothes; garments (outer and under) for boys, youth, and men, and for girls, misses, and women; cookery, the chemistry of foods; purchasing meats, vegetables, and other provisions; refrigeration, winter-storage; household sanitation, house-cleaning, purchase of furniture, tableware, bed-linen; heating, airing, lighting; care of the sick and of the injured; care of babies and children; house-decoration; employment of labor; service and the direction of service; fuel, oil, gas, electricity; plumbing; insect pests; rodents; garbage; household waste; accounts, bills, auditing, bank-accounts, household periodicals; home-making; and oversight of children's games and amusements.

Here we have five elementary key-subjects,—sewing, cooking, nursing, house-cleaning and planning. Of these, the first three may be introduced in simple forms into the elementary school. Most of the others are well within the range of high-school girls when taught by competent teachers.

The typical lessons in sewing and cooking are essentially exercises exemplified by the teachers. Nursing, however, is best taught by the use of lectures illustrated partly by stereopticon slides or by other pictures and partly by going through some of the processes with



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models simulating illness or accident. Fortunately the advances already made in actual practice by teachers of the domestic sciences<sup>1</sup> and arts. But much of the ground to be covered in these fields requires informational lectures and inductive recitations.

To teach these domestic sciences and arts properly, we shall have to give up our notion that though married men are preferable to bachelors as superintendents, as principals, and as class teachers, unmarried women are preferable to mothers in any and all educational positions. "The majority of our teachers of boys and girls above twelve years of age should be husbands or wives, fathers or mothers. . . . These are none too experienced, none too wise to manage the boys and girls of other parents."<sup>2</sup> It is especially true in these subjects that the best teachers come from the ranks of the mothers, whether wives or widows matters but little. The cult of celibacy for women teachers is absurd and dangerous in every aspect; but it is a wrong to our girls to deprive them here of unquestionably the best-equipped teachers. Of course, our teachers of the domestic sciences and arts must be pedagogically trained, but the intervention of marriage should be no bar anywhere. It no longer is in New York City or in the District of Columbia (since 1906). And again, of course, wives and widows are not to be preferred necessarily against otherwise superior teachers, but they should be preferred, "other things being equal," in all subjects of instruction that concern that fundamental and sacred institution, the home.

<sup>1</sup> Cookery is a "science" according to the peculiar usage now prevailing in this general department, while sewing is an "art."

<sup>2</sup> *A Theory of Motives, Ideals and Values in Education*, page 173.

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While we owe to the exigencies of our social situation alike the inspiration and the pressure to undertake the greatly increased activities of the modern school, we owe to the kindergarten movement and to its leaders the pedagogy of the new education in the earlier years at school, in which these activities find their source. We cannot successfully develop domestic science, commercial art, agriculture, and the other new subjects until we have in our primary schools both psychological exercises and informational studies. The school arts are not enough as preparation for modern life. We need also the self-expressive activities,<sup>1</sup> which include games and plays; construction in cardboard and other materials; weaving, knotting, braiding; modelling in sand and in clay; drawing; painting in water-color and in ink; dramatization of number operations, of stories, and of pictures; and the old writing on paper and black-board as well. These psychological exercises are coming into the school not in opposition to or for the elimination of the 3 R's, but to enlarge, to encircle, to confirm and to illuminate them.

In the same way the new informational studies are not to displace reading, but to develop in the child motives for reading and apperceptive masses by which to interpret the printed page. Story-telling comes before beginning of teaching to read, and yet is also its finest accompaniment, because by it the ear reinforces the eye. Let us therefore daily tell stories,—true ones

<sup>1</sup> We are indebted to Miss Ada Van Stone Harris, Assistant Superintendent of Schools, Rochester, New York, both for the phrase and for its realization in practice in a large system of city schools. An "expressive activity" is a "psychological exercise." For the psychology of such exercises see O'Shea's *Dynamic Factors in Education*.

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of history, of biography, of everyday life; myths; poems; even fairy stories when the ethical or esthetic lesson is clear and apt. And let us have Nature-study. Is there any other way to redeem the city child than by the way of Nature? And does not Nature-study teach even the country child what and how to see and why things are as they are?

In our new, vast enterprise of educational expansion, several principles should control our social action. So controlling that action, they will serve as inducements to draw more of our ablest and best young men and women into the work of professional education.

Of these, the first principle is that education is necessary in order to preserve from generation to generation the heritage of culture, such an education as in fact does transmit that heritage in full.

The second principle is that the true motive to cause us to educate our youth consists in our love for them individually, and in our consequent desire, purpose, intention, plan, and practice of educating each one of them to the full of his (or her) powers, to the end that each may live a useful, happy and successful life.

The third principle is that in a great and complicated civilization, we set apart a sufficient number of sufficiently educated persons to do for us this twofold work,—of transmitting culture and of educating youth thereby.

The fourth principle is that since, in the final analysis, there is no difference in the merit of individuals and there is a limitless demand of humanity for the best individuals that can be produced, we should educate each to the reasonable limits of his powers both for his own sake and for that of humanity.

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Therefore, we are seeking to build "the universal school" coequal with the universal State and a restored universal Church, each mutually dependent upon the other and yet within the limits of organized society independent of one another. To be specific: Our school shall be as separate from politics as from ecclesiasticism, a non-political and a non-religious social institution, the home and medium of all the arts and sciences, liberal and applied, ultimate and mediate, for all persons of whatever ages, free and universal, at once useful and cultural, because aiming to educate an eternal being whose duty nevertheless is in this present world.

“The subject that involves all other objects, and therefore the subject in which the education of every one should culminate, is the theory and practice of education.”—  
HERBERT SPENCER, *Education*. 1860.



## CHAPTER X

### THE TEACHER'S OWN LIFE IN AN AGE OF EDUCATIONAL EXPANSION

Relations with superior officers.—Questions usually asked of candidates for positions.—Progress in scholarship.—One's library.—Health.—Recreation.—Vacations.—Public, private, endowed, and ecclesiastical school positions.—Elementary, secondary, and higher positions.—Learning some of the lessons of life.

HOW to invest one's life is a question that many of us take up too late in life to answer freely. When taken up too early, we often answer it unwisely. A current has carried most of us into whatever social river we happen to be in now. Education is such a social river. Many different currents bring teachers into it. For those of us who are teachers and educators, it is highly important to feel that for ourselves no other work could be equally delightful. There must be joy in the working.

There is, in truth, for sincere souls a matchless opportunity in education to invest one's life joyously and profitably as concerns the things that really count,—friendship, social service, art and science, self-development, freedom from strife and quarrel. That it is pleasanter to associate with youth and with children than with ambitious, jealous, pleasure-loving, money-seeking, disillusioned adults, most of them discouraged, some elated, few who have known both the societies of adults and of youth will doubt.

But the question that comes to the man or woman

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who is already a teacher and who may be a teacher of teachers is not upon the desirability or upon the advisability of being a teacher: it is rather upon how to live a happy and a useful life as a teacher.

In respect to this matter, I venture a few suggestions. For the first consideration, it is worth while to note that being useful is, for most persons, about half of happiness. To be useful is to be able and willing to do what society needs to have done. The rest of happiness consists in part in doing what in itself one likes to do, and in part in being where one likes to be, and for the rest in getting for one's industry a sufficient return to go on living without anxiety for the morrow for one's self and one's natural dependents.

For the second consideration, it is worth while to know how to get along with one's "superiors," for in "the business of teaching," which is livelihood by social favor, every one has superiors. The hierarchy of a city public school system is a very complicated matter,—and one different in the different States and even in the different cities of the same State. In the Union (City) District of Norwalk, Connecticut, it is as follows—*viz.:*

State Constitution  
Governor and Legislature  
State Board of Education  
Town of Norwalk Meeting (of all citizens)  
Town Board of Estimate and Taxation  
Town Board of School Visitors  
Union (City of South Norwalk, etc.) District Meeting  
(of all citizens)  
Union District School Committee  
District (City) Superintendent  
Principals and Supervisors  
Class Teachers  
Pupils



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In the city of Paterson, New Jersey, the hierarchy is quite different—*viz.*:

State Constitution  
Governor and Legislature  
State Board of Education  
State Superintendent of Public Instruction  
State Board of Examiners  
County of Passaic Superintendent of Public Instruction  
Mayor of the City of Paterson  
Board of School Estimate  
Board of Education  
Board of City Examiners  
City Superintendent of Public Instruction  
Supervisors and Principals  
Class Teachers  
Pupils

For practical working purposes, in Norwalk, the control is actually in the hands of two bodies—*viz.*, the town board of estimate and the union district meeting; in Paterson, it is in the hands of the mayor, for he appoints the board of education and thereby also controls the board of school estimate. I use these cities merely as examples. Young teachers and teachers who have seldom been outside of their own home-communities have very strange notions as to the main rulers of public school affairs.

Compared with city school conditions, how simple are those of the rural districts in many States, where the teacher in actual practice needs only to "get on" with the chairman of a small school committee! When, as in New Jersey, the tenure of an experienced teacher is not controlled at all by the board of education or any other school authority but by the regular law courts,

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the problem of the relations with superiors becomes very simple. It consists in performing one's daily duties, in living a decent and moral life, and in being polite and kind and yet self-respectful. One who meets these three conditions not only holds office until retired on municipal or State pension or both, but is likely to be happy.

But in most States, how to get along with one's superiors is a matter to which the teacher must give constant attention. Even so, from change of superiors or from their caprice, even good teachers frequently must give way to others. In such a state of affairs, I venture but a few suggestions—*viz.*:

1. Be courteous.
2. When asked to do wrong, resign or make open war.
3. Obey in full all other orders, requests, suggestions, even whims of superiors.
4. Make but few suggestions to them. Make those few respectfully but clearly. Do not be disappointed when they are not heeded. The superior may have yet other superiors.
5. Remember that you yourself may be in error and try to get the truth about yourself.
6. Assume that professional superiors know more than you do and talk to them freely as friends, when you can; assume that lay superiors know less, know too little to warrant conveying to them much information about the school. They will probably consider it at best as "school gossip," at less as foolish, at worst as malicious, even though it be truthful and really kind.
7. Remember that every art and every profession is essentially esoteric. What you have taken years to learn, the public are not likely to grasp in a few sentences.
8. In relation to all others than your children, look upon your own work as essentially for self-culture. But work

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for the children unselfishly. After all, the public supports you at their expense for the sake of their children. As a teacher, your class work is your "reason for being."

If for any reason you desire to get a new position as a teacher, consider for what kind of teacher employers are looking. Here are a few examples of the questions that superintendents ask regarding applicants for positions and that boards of examiners ask regarding applicants for licenses. They serve to show what systematic observers have in mind when they are "marking" teachers, an unpleasant but a necessary duty when one must deal with many teachers.

These questions may be set forth under various heads. Perhaps those cited here are as useful as any others.

*Character.* 1. Has the teacher a good moral character? 2. Does he (or she) bear an unblemished reputation in the community? 3. Has he any unfortunate qualities? 4. What is his general influence in the community? 5. Does he take any interest in the general welfare (a) of the school? (b) of the community? 6. Is he (a) reliable? (b) patient? (c) courteous? (d) industrious? (e) fond of his pupils? 7. What do the parents think of him (or her)?

*Scholarship.* 1. Has the teacher thorough general scholarship? 2. Has he had adequate professional training? 3. If not, what is the nature of his deficiency? 4. Is he progressive? 5. Does he stimulate his pupils to study by reason of his own example? 6. Is he studious now? 7. Has he any special proficiency (a) in music, (b) in drawing, (c) in manual work, (d) in any other craft, art or applied science? 8. Has he a good

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stock of general information? 9. Is he discriminating and judicious in his comments upon current affairs? 10. Does he speak good English? 11. Has he ability to write well? 12. Can he interest his pupils in his narratives and descriptions?

*Instruction.* 1. Does he teach essentials? 2. If not, what inessentials does he tend to magnify? 3. Do his pupils acquire good habits? 4. If not, why not? 5. Does he use appropriate methods in giving instruction in each of his several subjects? 6. Does he correlate topics capable of such association? 7. Does he employ modern devices? 8. Is he improving in the technique of instruction? 9. Does he plan his work, and pursue a suitable daily program? 10. Does he use a due amount of review and of drill? 11. Is he earnest in his work as an instructor? 12. Does he visit other teachers to observe their methods? 13. Is he over-inclined to new devices?—Is he a routinist? Or does he follow a golden mean? 14. Does he neglect details? 15. Are his tests and examinations thorough and complete? 16. Does he use an appropriate amount of written work? 17. Does he talk himself or make his pupils talk? 18. Has he the power to make his pupils attend to and carry out his directions?

*Discipline.* 1. Does he get and keep order? 2. By what methods and means? 3. Does he give sufficient attention (a) to the general management of his class? (b) of the discipline of individuals? 4. Is he interested in the conduct of his pupils outside of his class-room? 5. Does he coöperate with other teachers in respect to discipline?

*In general.* 1. Does he (or she) visit pupils in their homes? 2. Does he attend the meetings of the parents'

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association or other similar society? 3. Is he an agreeable and helpful colleague? 4. Is he loyal to his superiors in educational office? 5. Does he interest himself in the general welfare of his school and of the cause of education in the community? 6. Is his health adequate for the regular performance of his duties? 7. Has he travelled widely? 8. Has he a pleasant voice? 9. Does he question well? 10. Is he self-controlled? 11. Is he willing to accept suggestions? 12. Has he the ability to carry out suggestions? 13. Does he see what is going on about him (a) in his class-room? (b) elsewhere? 14. Has he made a scientific study of human nature in children and youth? 15. Has he good executive ability? 16. Do his pupils respect and admire him? 17. (a) Does he love children and youth; (b) or is he engaged in teaching from interest in the subjects that he teaches; (c) or does his interest seem temporary and primarily financial? 18. Does his record evince aptitude and fitness for education? 19. Is he social or solitary (a) by nature? (b) by training and experience?

Many other questions indeed are asked. Decisions for and against applications for licenses and for appointments do indeed turn upon the answers to these other questions—*e. g.*, height, weight, age, sex, religion, physical defects, prepossessing personal appearance, social standing, experiences of travel, higher education and culture, marriage, children, financial condition; but in nine cases out of ten, final success or failure as a teacher depends upon the progress of the pupils made in his care.

The teacher who desires to do better work year after year may perhaps profitably consider these suggestions. Long ago, some clever man declared, "Beware of the man of one book." Select a few good books, perhaps

but one or two a year, and faithfully master them. In our profession-to-be, there are as yet only a few great books. And even in the subjects taught in our secondary and elementary schools, the literature as yet is not large. Read not many books but a few books much and well,—read half an hour every day, and two hours on Saturday.

For the rest of one's scholarship, take one or two good educational periodicals such as really contain material at once useful and interesting in one's own line.

Every teacher needs to read some poetry and some fiction for mental relaxation. It is not enough to get a book now and then from the public library. One needs a library, large or small, at one's hand at home. Of course, what the library contains should depend upon one's tastes as well as upon one's pocket-book. My own favorites are Bunyan's *Pilgrim's Progress*, Blackmore's *Lorna Doone*, Scott's *Ivanhoe*, George Eliot's *Middlemarch*, Victor Hugo's *Les Misérables*, Dickens's *Bleak House*, Thackeray's *Vanity Fair*, Howells's *A Boy's Town*, Stevenson's *Treasure Island*, Kipling's *Jungle Books*, Cooper's *Last of the Mohicans*, Bulwer Lytton's *Last Days of Pompeii* for novels,—each of which I have read many times,—and for poetry Homer's *Odyssey*, Dante's *Divina Commedia*, and Shakespeare's and Lowell's poems generally. I read more poetry than prose-fiction. There is something rather conventional about the list, I know; but it suits my needs, which is the main requirement for any library.

A teacher who would prosper must consider the matter of health. Teaching five or six hours daily with duties before and after school with home-study and lesson-preparation is hard work, as the death-rate of

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teachers shows. Here my suggestions again are simply presented, not urged—*viz.*:

1. Upon coming home from school, wash and chill the back of one's neck and one's face with cold water and lie down to rest the spinal system. Take a nap if possible.

2. Take frequent baths,—sponge, shower, or tub, hot, warm, or cold, as best suits one's constitution and diathesis, —morning or night,—at least triweekly.

3. Five nights in the week go to bed early. Physiologists discriminate eighteen periodicities,—strength-fatigue rhythms. Don't expect to feel well at 11 A.M., at 4 P.M., or from 11 P.M. to 5 A.M.—the diurnal triple rhythm; or on Saturdays, the seven-days rhythm; or for one week in every twenty-nine days—the moon-month rhythm—whether man or woman, but especially woman; or in August and in April, the seasonal double rhythm; or if a man of English descent, when 22, 30, 39–40, 54–56 years of age; if a woman, at 19, 27, 36, 44–46 years of age. (Every human being should rest every seventh year, especially women school-teachers and all mothers.)

4. Respect holidays and vacations as rest and recreation periods.

5. Eat a good breakfast. Get up early and exercise enough to do this. When you have no appetite for breakfast, see your doctor. A good breakfast means hot oatmeal and a mutton chop, or the full equivalent. Vary the drinkables, and avoid strong, hot coffee daily: it ruins teaching. (The chief effect of coffee is to defy the daily triple rhythm.)

6. Wear clothes just warm enough,—not too warm.

7. At school, wear broad shoes, with broad low heels, and save the cervix of the neck. It is the price of a strong straight back ten years hence.

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8. Walk one hour daily in all weathers that permit walking,—in English fashion, from the hips down, not with ankle and calf only.

9. And never worry. There is but one occasion when one may properly worry: after serious sin. Otherwise, never worry. For most of our “troubles,” we are no more responsible than for the clouds and for the drouths. Worry otherwise is itself a sin.

A teacher's vacation is a precious opportunity either for physical rest or for intellectual refreshment or for both. Unfortunately, there is often but little money left over for vacations, so that the summers must be spent less profitably than the teachers themselves wish. Many teachers take up some economic employment. Others remain at home. Still others search out the least expensive country or seaside or lake resorts, and there try to rest and to recuperate. What to do is always a personal problem. Some teachers cannot be spared from their homes. Others have no homes. So many accidents and other unforeseen events occur that an all-the-year economizing in order to have a good summer vacation often eventuates in disappointment. Travel is indeed good for most persons above twenty years of age. A railroad ticket is the best of geographies. And yet some of the best trips I have ever made I never did make!—I “read up” about the region or country to be visited, but in the end I could not go. But so much as this is sure—that the boys and girls of my youth, now upon the foothills of age, who have done the best for the world and for themselves are, in nearly all instances, those who have spent their holidays and vacations wisely. A few principles



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may be ventured for those whose vacations are measurably within their control.

1. Seek a change—of climate, of scenes, of faces, of the daily round.

2. Get near to or into "Nature";—the woods, the fields, the lakes, the sea, the mountains.

3. Plan something to do—like photography, or building a boat, or painting pictures—to fill in when there is nothing else to do.

4. Either have the right friends with you or proceed alone.<sup>1</sup>

5. Do not undertake too much.

Here rises "the summer school question." It is a wise thing to go to a well-located summer school for part of the summer,—provided one does not pursue too many subjects daily.

And here rises that other wonderful question,—the trip to Europe. "Yes, if well, and not too long a trip, covering too many places, is proposed."

Often one who has had some experience in the world of education is asked by an entrant,—“Is it best to teach in high or elementary school or to seek a college position?” “Is it best to teach in a private, an endowed, a public or an ecclesiastical school?” These questions cannot be answered definitely, for two reasons. 1. We cannot foresee the change in American

<sup>1</sup> There is perhaps no one other reason so strong as to why some middle-aged persons do not improve as that they have been so unfortunate as to link to themselves some one friend like themselves. With that friend, they spend their time in gossip, in regrets, in mutual admiration, becoming like vampires or leeches to one another. Have two friends, or three, or none. Even married couples who think nothing of others than themselves lose their power of growth.

civilization for a lifetime. 2. Much depends upon the person, his or her qualifications, means, etc. It is a merely personal opinion, and offered only as such, that the public high school is to-day the most promising of all fields of educational labor. "Shall I teach at home or begin elsewhere?" To this, there is one general answer. "Begin elsewhere."

In all these matters, remember that there are always at least five questions,—1. Personal fitness for the work proposed. 2. The associations of one's life. 3. The amount of service to be rendered. 4. The salary. 5. The cost of living.

Teaching is an intensely practical affair. It makes men think,—makes teacher, pupils and the world think. Teaching makes thinkers.<sup>1</sup> In teaching, the teacher begets thinkers. And thinking sets the world forward in the way to truth. Thinking is intellectual life. Thinking is the soul of every virtue, the method of arriving at repentance for sin, the method of conversion, the path to salvation. The teacher must think. Unless he thinks,—which means to move, to observe, to reflect, to understand, to judge, to reason,—he is not and cannot be a teacher in fact. The preservation (not to say the progress) of civilization depends upon teachers' really being thinkers and so raising up generation by generation other thinkers to take the place of those reaped in the ceaseless harvest of Death.

For every civilization is the expression of ideas, the triumph of thought. Teaching is not parallel with or upon the same plane with the other learned professions. It is the good mother of them all. Teachers make

<sup>1</sup> "The most practical thing in the world is to make a man think."—THWING, *History of Higher Education in America*.

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ministers, lawyers, physicians, surgeons, dentists, engineers, chemists, authors, journalists, poets, philosophers, professors, superintendents, inventors, mechanics, farmers, citizens. Only the illiterate manual laborers escape the teacher. Could teachers have their way with the young and keep them at school until educated morally, the entire supply of thieves, forgers, murderers, perjurers, maligners, prostitutes, gamblers, paupers, and all other enemies of mankind, would be automatically cut off. But are all educated men good? Yes. Some college graduates are criminals? No doubt; but pseudo-education is still a cult in some quarters. The true education leaves in the heart no willingness to wrong one's fellows even to preserve one's own life or that of near and dear ones.

It is sometimes thought that the life of a teacher is narrow and circumscribed. Even harsher criticism of the teacher is sometimes indulged in by those who "speak evil of things they understand not."<sup>1</sup>

Teachers often suffer from being represented falsely to other adults by children and youth who, of course, cannot comprehend them. And these other adults sometimes take the very praise of children and youth for their teachers as evidence that the teachers are of but childish natures. The very idealism of the teacher, the noble endeavor to preserve the good, the true and the beautiful in the world and in the esteem of the world is sometimes made to appear as lack of common sense. But let us remember both that the nexus of our social life is precisely this brotherly kindness and charity that we teach and should exemplify and that the efficient moving cause of progress in human history is the idealism,

<sup>1</sup> Peter, *Second Epistle*, ii: 12.

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the search for truth, the love of the good, the true, the beautiful for which we stand and forever must stand.<sup>1</sup>

In the main, teaching is a delightful service, in itself richly worth while, a privilege beyond any other privilege among men. Out of millions of homes, they send to us their young, their best, to teach them almost what we will. It is a sacred trust. They send these offspring of their own bodies, the dearest treasures of their souls, to us in a serene and sometimes thoughtless confidence. All the more should we do for them our best, which is our duty.<sup>2</sup>

And it is a pleasant thing to know that in the main the class teachers of America are cheerfully doing their full duty.

<sup>1</sup> "Behold, I have made thy face strong against their faces,—as an adamant harder than flint have I made thy forehead; fear them not, neither be dismayed at their looks, though they be a rebellious house."—*Ezekiel*, iii: 8-9.

<sup>2</sup> "Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue and if there be any praise, think on these things."—Paul, *Epistle to the Philippians*, iv: 8.

# APPENDIX

## APPENDIX I

### AN OPEN LETTER TO ONE WHO IS JUST BEGINNING TO TEACH

You are one of one hundred thousand new teachers here in America this year who are taking the places of those dropping out. The average experience of teachers is five years. You are one of five hundred thousand teachers now in our American schools and colleges. You will, therefore, probably teach five years. Of those who leave the work, one in every two marries. The other one is lost to teaching, sometimes because of being needed at home, sometimes because of going into other employment, occasionally because of a legacy or other inheritance, often because of ill-health that never permits return; in some instances, Death calls. Of American women, one in one hundred is now teaching school and one in thirty has taught school. You belong to an army of intelligence, righteousness and good will.

As a teacher, you are likely to be successful. Within a few years, you are likely to feel that the financial rewards of teaching are small, the labor hard, some of the conditions of teaching disagreeable, and that your own equipment is deficient. Nearly all teachers go through this awakening. It means that you will have discovered how important the work of teaching is. At present, you see it more as an enterprise for your own sake. Then you will see it in its true light of a social service, whose nature only experienced teachers and other enlightened persons really understand.

In this book, I have tried to display something of the spirit, of the mechanism, and of the conditions of class teaching. It is a book primarily for young teachers. Youthful enthusiasm and zeal and health go far to supplement deficiencies of knowledge

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and of technical skill. Twenty years hence, you will be a good teacher only if in the mean time you have acquired knowledge and skill through labor and thought.

Be patient with yourself. Be willing to go forward step by step.

Do not expect much help from others: development is from within.

Aim to be clear. It is perhaps the greatest beauty in true teaching. Nature avoids confusions and is discriminating, as Comenius showed in the world's first book of pedagogy, *The Great Didactic*.

If you have official superiors who are professional educators, recognize the chief one of them as your captain. As Doctor Albert E. Winship says so eloquently in his famous lecture, "The Accompanist," it is the business of most of us to support cheerfully and closely the soloist. Society is organized upon that fashion.

If you have no professional educator to help you and to be helped by you and are solely responsible for your own work, cultivate the professional relations assiduously by reading good educational books and periodicals.

When you grow tired and discouraged, or if disconcerted by some untoward event, perhaps beyond your control, or if you really do make mistakes, remember that all of us survivors from youthful days have also been discouraged and tired and disconcerted and now count our mistakes not on our fingers' ends but in columns and relays of figures: you are experiencing life.

And when in trouble do not hesitate to ask advice, though you may well hesitate about taking much of it. Advice helps one to get the other fellow's viewpoint, the world's opinion. Moreover, when in trouble and in doubt, remember just a few standards of conduct. 1.—If all other persons should act this way or that way, where would the world end? 2.—Courage and honor are the highest qualities, sometimes absolutely prescribed; but patience and tact may help tide along until there is better cosmic weather. 3.—Persons who are tired and sick should be wary about expressing themselves; they may be right, but others will not believe them.

Finally, it is not the good resolution but the day's work that counts.

## APPENDIX II

### AN OPEN LETTER TO THE EXPERIENCED CLASS TEACHER

THE secret of progress is forward change; of power, is truth-seeing.

The optimist tales off his incomes, the pessimist his expenses; but the philosophical veteran counts assets and debits, receipts and outgoes, and strikes the balance truthfully.

Middle-life and old age have their advantages: "We have seen something like this before." Routine has lost its irksomeness and has given us habit, familiarity, facility and skill. And we do know something about people, not very much, not too much, not enough indeed, but something; we are not so often surprised.

Blessed are they who at fifty years of age have still kept their visions. In a hundred years, we have created a whole generation of old persons, raising the average term of life a dozen years. The center of social gravity has been lifted from the man forty years of age to the man of fifty-five.<sup>1</sup> The dead-line of old age used to be at forty years: it is now at sixty, as our teachers' pension laws show. We have done also many other wonderful things in the past hundred years,—we have found that women are just as useful to culture and civilization as men and thereby have doubled the workers for the social good; we have learned to reform criminals, not simply to jail or kill them; we have discovered the nature of the feeble-minded, have thereby learned much about the nature of the normal, and have come to love all

<sup>1</sup> The average age of the signers of the Declaration of Independence in 1776 was thirty-seven years: that of our present Congress is fifty-six years.

## CLASS TEACHING AND MANAGEMENT

human beings, even the unfortunate; we have discovered also the values of the young and for the first time in human history are freely teaching to all children the ways of culture; we have made the stranger at home within our gates and thereby made passports relics of barbarism; we have created at last surplus wealth, enough for each, more than enough for all; and we have made books and papers as universal as sunlight. And we call this the beginning, not more, the beginning of systematic, universal civilization for humanity. There is much yet to do.

We have yet to call up Lazarus from the foot of the table of Dives. Not all poverty is preventable. Such of it as is preventable,—such as results from fraud and ignorance,—we should cease to ignore; and all the rest we should relieve. Perhaps ignoring poverty is the worst of the remaining vices of mankind. Education cannot much longer turn its face away from the fact that half of the “ignorance” of children is simply poverty at its second power—*viz.*, physical and mental weakness and degeneracy.

It is well for us who have seen half a century of this astonishing progress to cherish our friendships with those who have survived with us from the depths of the Civil War and to cultivate new friendships with those who, taking our achievements as matters of fact, are now, with youthful energy, pushing on into the dawn.

Even more important is it for us to woo new ideas. Wisdom will not die with us: nor has God shut the gateways of heaven so that new knowledge is not still flooding out into this world. The river of the water of life flows forever and is clear as crystal.

Physicians tell us that “the body of a man is as old as his arteries.” The mind of a man is as old as his ideas, his truths. The soul of the good man knows nothing of age, but forever welcomes the new, and is young with faith and aspiration.



## APPENDIX III

### THE CHOICE OF TEXT-BOOKS

1. **THERE** are now two hundred publishing houses that make text-books. Six of them are great national enterprises.

2. Many of the new text-books are scientifically fresh and new, well printed in large clear type on good paper soft to the eyes, handsomely illustrated, written in good English, and substantially bound.

3. The catalogues of any of these houses may be had for the asking. It is not necessary even to send stamps. The addresses of any of the large houses may be discovered in any educational periodical. They are all generous advertisers.

4. And yet many teachers are still forced to use inferior books. The main reason is that teachers do not know the foregoing facts, and that others (often by law) choose their books for them.

5. To be specific: There are now on the market to-day (*a*) four great systems of teaching to read, and twenty beautiful series of reading-books; (*b*) four fine geography series, two others almost as good, and one great series of travel geographies; (*c*) six notable arithmetics; (*d*) three series of Latin books and texts; (*e*) one wonderful series of supplementary reading and two others almost as good; (*f*) one complete evening school series; (*g*) three houses print libraries of German and French texts; (*h*) a revolution is taking place in science teaching, from physiology to physics; (*i*) there is one great house devoted entirely to school drawing and (*j*) another to kindergarten materials; (*k*) there are three standard unabridged dictionaries; (*l*) four magnificent encyclopedias; and (*m*) one thirty-volume history of the United States, invaluable to any teacher. The smaller houses live by publishing notable books, and one or more of them may be a

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leader ten years hence, so keen is the effort to make yet better books and so eager are American educators to use them.

In the above situation, the opportunity of district school teachers is their duty. Some day, State adoptions will be abandoned; and in cities and towns, class teachers will be asked to help select the best books. By 1920, unless the cosmic weather of the world sees some great war (which God forbid!), we shall be spending one billion dollars a year for education, and twenty-five, even thirty millions, for school-books. We doubled our annual school and college expenditures from 1900 to 1908; we shall double them again from 1910 to 1920.

The good teacher asks for the best books; the poor teacher should have them. The best book is none too good for the child, or for any one else.

## APPENDIX IV

### OUTLINE OF A STANDARD MINIMUM COURSE OF STUDY BASED UPON THE COURSE IN THE SCHOOLS OF CINCINNATI, OHIO

Dr. F. B. DYER, Superintendent of Schools.

Kindergarten.—Gifts. Occupation Work. Story-telling. Music. Games.

Grade I.—*English*: Blackboard reading lessons. Primers and First Readers. Five hundred words. Phonics. Spelling. Stories.

*Number*: 1-10. Counting to 100. Money coins.

*Nature*: Familiar animals. Seeds. Weather.

*Writing*: Pencil—large letters. Blackboard—arm movements.

*Music*: Rote-songs, etc.

*Games*. *Calisthenics*. *Ethics*. *Busy Work*. *Hygiene*.

*Drawing*: Construction; color.

Grade II.—*English*: Phonics. Second Readers. Spelling. Dictation. Oral reproduction. Stories. Memorizing. Dramatization.

*Arithmetic*: Roman numerals to L. Clock. 11-50. Easy measurements.

*Nature*: Some wild animals. Plants. Rain, snow, etc.

*Writing*. *Music*. *Games*. *Calisthenics*. *Hygiene*. *Ethics*.

*Drawing*: Construction; color, etc.; picture-study.

Grade III.—Phonics. Third Readers. Spelling. Dictation. Plurals. Abbreviations. Adjectives. Statement, question, command. Composition. Dramatization. Local stories (of Cincinnati). Myths and legends. Memorizing. Correction of oral speech.

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*Arithmetic:* Multiplication tables, 2-5. Short division.

*Geography:* Out-of-door observation. Land, water, life.

*Nature:* Seasons Plants. Animals. Winds.

*Writing. Music Gam Calisthenics. Hygiene. Ethics.*

*Drawing:* Color, etc ' picture-study.

Grade IV.—*English:* Fourth Readers Spelling and dictation.  
Forms of Speech. Paragraphing Composition. Stories.  
Memorizing.

*Arithmetic:* Multiplication tables, 6-12. Long division,  
two figures.

*Geography:* The globe. North America. Mountain-  
systems.

*Nature:* Stars, etc.

*Writing. Drawing. Music. Hygiene. Ethics. Calis-  
thenics.*

Grade V.—Fifth Readers. American history stories. Compo-  
sition. Spelling. Dictionary-study. Dictation. Letter-  
writing.

*Arithmetic:* Denominate numbers. Easy common fractions.

*Geography:* United States, Ohio.

*Nature. Ethics. Writing. Drawing. Music. Calis-  
thenics. Hygiene.*

Grade VI.—*English:* Sixth Readers. Spelling. Memorizing.  
Grammar. Composition. Dictation. Letter-writing.  
Themes correlated with other studies.

*Arithmetic:* Denominate numbers. Decimals. United  
States money.

*Geography:* Europe.

*Nature:* Animals. Plants. Minerals.

*History:* General, English, and United States. Stories  
of great men.

*Manual Training:* Boys, shopwork. Girls, sewing.

*Drawing. Calisthenics. Hygiene. Music. Ethics. Writ-  
ing.*

Grade VII.—*English:* Seventh Readers. Spelling. Grammar.  
Composition. Memorizing. Social and business corre-  
spondence. Dictation.

*Arithmetic:* Fractions. Denominate numbers. Percent-  
age and interest.

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*Geography:* Asia. South America. Africa. Australia.

*Nature:* Matter and heat by experiments.

*History:* United States through Revolution.

*Manual Training:* Boys, shopwork. Girls, sewing.

*Drawing. Calisthenics. Physiology. Music. Writing. Ethics.*

**Grade VIII.**—*English:* Eighth Readers. *Snow-Bound, Sketch Book, Christmas Carol, Julius Cæsar*, and other supplementary reading. Selections to be memorized. Spelling—Selected lists. Word-studies. Synonyms, affixes, meanings. Grammar—Syntax. Language and Composition—Narration and description. Abstracts. Outlines. Exercises in choice of words, variety of expressions, and figurative language. Social and business correspondence,—bills, notes, applications, etc.

*Mathematics:* Ratio and Proportion. Evolution. Mensuration. Review. Algebra—Fundamental processes, equations, factoring.

*Geography:* Physical causes. Commercial and industrial geography, taking the United States as a central point of view.

*Nature:* Simple machines, light, sound, electricity, by observation and experiment.

*History:* From the American Revolution. Study of the Constitution. Local history and civics.

*Drawing:* Freehand representation. Construction drawing. Design. Color. Picture-study.

*Penmanship. Ethics. Music. Hygiene and Physical Training. Physiology. Physical Exercise.*

*Manual Training:* Boys, shopwork. Girls, cooking. Special syllabus.

# CLASS TEACHING AND MANAGEMENT

## ACADEMIC COURSES

Elocution 1, Music 1, Gymnasium 2 periods a week, throughout the four years

FIRST YEAR			
1	2	3	4
GENERAL		CLASSICAL	DOMESTIC SCIENCE
English .....	4	English .....	4
Algebra .....	4	Algebra .....	4
Latin or } .....	5	Latin or } .....	5
German (Adv.) or } .....		German (Adv.) or } .....	
German (Beg.) .....		German (Beg.) .....	
Botany or } .....	4	Domestic Science .....	8
Zoölogy (1 double) } .....	5	Applied Art .....	2
Drawing .....	2		
		MANUAL TRAINING	
		English .....	4
		Algebra .....	4
		Latin or } .....	
		German (Adv.) or } .....	
		German (Beg.) .....	
		Manual Training .....	8
		Drawing (Mech.) .....	2
SECOND YEAR			
English .....	4	English .....	4
Geometry .....	5	Geometry .....	5
Latin or } .....	5	Latin or } .....	
German (Adv.) or } .....		German (Adv.) or } .....	
German (Beg.) .....		German (Beg.) .....	
History (Ancient) .....	4	Domestic Science .....	8
Drawing (Opt.) .....	2	Drawing and Applied Art. .....	2
		English .....	4
		Geometry .....	5
		Latin or } .....	
		German (Adv.) or } .....	
		German (Beg.) .....	
		Domestic Science .....	8
		Drawing and Applied Art. .....	2

French, 4: English Composition, 1; an option in the General Course for English for those preparing for colleges requiring three years of French.

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## THIRD YEAR

English .....	4	English .....	4	English .....	4
3d Year Latin or	5	One from—		One from—	
1st Year German or		3d Year Latin or		3d Year Latin or	
German (Adv.) or	5	German (Adv.) or	5	German (Adv.) or	5
German (Beg.)		German (Beg.)		German (Beg.)	
Two from—		French .....	4	French .....	4
French or Spanish	4	Spanish .....	4	Spanish .....	4
Algebra, $\frac{1}{2}$ Year	4	History (Ancient)	4	Algebra, $\frac{1}{2}$ Year	4
Physics (1 double)	5			Trig'ry, $\frac{1}{2}$ Year	4
History (Med.)	4				
History (Mod.)	2				
Drawing (Opt.)	2	Greek .....	5	Chemistry .....	5
				Domestic Science	8
				Applied Art	2

Elocution, Music and Gymnastics optional first half year.

## FOURTH YEAR

English .....	4	English .....	4	English .....	4
4th Year Latin or	5	Two from—		One from—	
2d Year German or		4th Year Latin or		2d Year German or	5
German (Adv.) or	5	2d Year German or	5	4th Year Latin	
German (Beg.)		German (Adv.) or		German (Adv.)	5
Two from—		German (Beg.)	5	German (Beg.)	5
French or Spanish	4	French .....	4	French .....	4
Chemistry (1 double)	5	Spanish .....	4	Spanish .....	4
Sol. Geom. $\frac{1}{2}$ Year	5	Physics (Double)	5	Chemistry (1 double)	4
Adv. Math. $\frac{1}{2}$ Year	5	History (Am.)	5	Sol. Geom. $\frac{1}{2}$ Year	5
Astronomy, $\frac{1}{2}$ Year	4	Civics	5	Adv. Math. $\frac{1}{2}$ Year	5
Geology, $\frac{1}{2}$ Year	5				
History (Am.)	2	History (Ancient)	4	History (Am.)	5
Civics		Greek .....	5	Civics	5
Drawing (Opt.)	2				
				Domestic Science	8
				Physiology and Hygiene	4

One year of Science required in third or fourth year in General Course.

One year of History required in Domestic Science Course.

# CLASS TEACHING AND MANAGEMENT

## TECHNICAL COURSES

### FIRST YEAR

5	6	7	8
COMMERCIAL	BOYS' INDUSTRIAL	GIRLS' ART	GIRLS' INDUSTRIAL
English . . . . . 5	English . . . . . 4	English . . . . . 4	English . . . . . 5
Arithmetic and Algebra . . . . . 5	Arithmetic and Algebra . . . . . 4	Algebra . . . . . 4	Arithmetic and Algebra . . . . . 5
German or Spanish . . . . . 5	Industrial Geography . . . . . 4	Botany or Zoology . . . . . 5	Applied Art . . . . . 5
Commercial Geography . . . . . 4	Drawing . . . . . 4	Art . . . . . 10	Cooking . . . . . 4
Penmanship and Applied Art . . . . . 5	Turning, Pattern and Cabinet Making . . . . . 16	Physical Training . . . . . 2	Sewing . . . . . 8
Physical Training . . . . . 2	Physical Training (Opt.) . . . . . 2	Music . . . . . 1	Physical Training . . . . . 2
Music . . . . . 1		Elocution . . . . . 1	Music . . . . . 1
SECOND YEAR			
COMMERCIAL	BOYS' INDUSTRIAL	GIRLS' ART	GIRLS' INDUSTRIAL
English . . . . . 4	English . . . . . 4	English . . . . . 4	English . . . . . 4
Arithmetic and Geometry . . . . . 4	Applied Mathematics . . . . . 4	Geometry . . . . . 5	Geometry and Arithmetic . . . . . 4
German or Spanish . . . . . 4	Physics . . . . . 4	French . . . . . 4	Chemistry . . . . . 5
Stenography and Typewriting . . . . . 10	Drawing . . . . . 4	Art . . . . . 10	Applied Art . . . . . 2
History (Mod.) . . . . . 4	Foundry, Forge and Machine . . . . . 16	History (Ancient) . . . . . 4	Cooking and Household Arts . . . . . 6
Drawing (Opt.) . . . . . 2	Physical Training (Opt.) . . . . . 2	Physical Training . . . . . 2	Millinery and Dressmaking . . . . . 8
Physical Training . . . . . 2		Music . . . . . 1	Physical Training . . . . . 2
Music . . . . . 1		Elocution . . . . . 1	Music . . . . . 1



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## THIRD YEAR

English .....	4	Chemistry .....	10	English .....	4	English .....	4
German or Spanish Correspondence .....	4	Drawing .....	2	French .....	4	Physiology .....	4
Or Physics .....	6	App. Mathematics, Shop Problems and Practice .....	10	Art .....	10	Applied Art .....	5
History (Am.) .....	4	Coöperative plan; alternate weeks in shop and school .....	10	History (Med. and Mod.) .....	4	Elect Specialty .....	20
Typewriting and Stenography .....	10			History of Art .....	2	Millinery, etc. Dressmaking, Tailoring and Art Needlework; Home Economics; Office Training; Salesmanship .....	
Bookkeeping .....	5			Physical Training .....	2		
Physical Training .....	2			Music .....	1		
Music .....	1			Elocution .....	1		

## FOURTH YEAR

English .....	4	History (Industrial of U. S.) and Civics .....	5	English .....	4	American History and Civics .....	5
German or Spanish Correspondence .....	4	Shop Science and Shop Practice .....	10	French .....	4	English .....	4
Or Chemistry .....	6	Drawing .....	10	Art .....	10	Applied Art .....	5
Commercial Law and Economics .....	4	App. Mathematics and Shop Problems .....	10	History of Art and Art Criticism .....	4	Elect Specialty .....	20
Civics .....	3	Coöperative Plan; alternate weeks in shop and school .....	10	Physiology and Hygiene .....	4		
Bookkeeping and Accounting .....	10						
Typewriting and Stenography .....	2						
Drawing (Opt.) .....	3						
Physical Training .....	2						
Music .....	1						

## APPENDIX V

### ILLUSTRATIVE LESSON PLANS AND EXAMINATION ELEMENTARY SCHOOL LESSONS

#### 1. GRADE VIII. *Arithmetic Review.* (Deductive.)

Time, 30 min. TOPIC: **Six Per Cent. Interest.**

*Presentation.* Review, by question-and-answer, definitions of terms,—interest, principal, rate, amount. Inquire as to facts of legal interest rate and of prevailing rates.

*Generalization.* Review development (on blackboard and orally).

Years	Int. upon \$100 for 1 yr. = \$6.	upon \$1. = \$.06
	Int. upon \$100 for 2 mo. = \$1.	upon \$1. = \$.01
Months	Int. upon \$100 for 1 mo. = \$ .5	upon \$1. = \$.005
Days	Int. upon \$100 for 1 day = \$ .0167	upon \$1. = \$.000167
Incidental process. 1 yr. = 12 mo. $\frac{1}{6}$ yr. = 2 mo.		
$\frac{1}{12}$ yr. = 1 mo. $\frac{1}{6}$ mo. = 6 days.		
1 yr. = 360 days. 1 mo. = 30 days. 1 day = $\frac{1}{360}$ mo. = $\frac{1}{360}$ year.		

**Rule.** To find interest upon a given principal at six per cent. for years, months and days:—**Multiply the principal (*a*) by the product of the number of years times \$.06, for years; (*b*) by the product of the number of months times \$.005, for months; and (*c*) by the product of the number of days times \$.000167, for days. The sum of (*a*), (*b*) and (*c*) is the interest.**

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**Application.** Find the interest upon \$300 for 2 yr., 4 mo., 12 days at six per cent.

$$\begin{array}{rcll} \text{Yrs.} & 300 \times 2 \times \$6. & = & \$36. \\ \text{Mos.} & 300 \times 4 \times \$ .005 & = & \$ 6. \\ \text{Days} & 300 \times 12 \times \$ .000167 & = & \$ .60 \\ & & & \hline & & & \$42.60 \end{array}$$

Answer, \$42.60

**Drill.** Examples in finding simple interest for years, months and days.

### 2. GRADE VIII. *Grammar Advance.* (Deductive.)

Time, 30 min. TOPIC: **The Infinitive To Be.**

**Presentation.** Review by question-and-answer definitions of transitive and intransitive verbs and of complements, and have principal parts of the verb "be" given.

- (a) To be prejudiced is to be weak.
- (b) He tried to be in his place promptly.
- (c) His ambition was to be first always.
- (d) The prisoner longed to be free.

Bring out by questions that "to be" is a form of the verb "be" that may be used like a noun as the subject or complement, and like a verb may take a complement.

Proceed in the same manner with (b), (c), and (d).

These verb forms are all called "infinitives."

**Generalizations.** 1. An infinitive may be used like a noun as:

- (a) The subject.
- (b) The object complement.
- (c) The attribute complement.

2. An infinitive may be completed like a verb by:

- (a) An object complement.
- (b) An attribute complement.

3. An infinitive may be modified like a verb by:

- (a) An adverb.
- (b) An adverbial phrase.

**Application.** Have a set of sentences on the blackboard and direct pupils to select the infinitive, giving the use and modifica-

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tion of each. Let each child tell in what respect the infinitive is like a noun and in what it is like a verb.

### 3. GRADE VI. *English.* (Exercise.)

Time, 15 minutes each day for a week.

Review of a selection from *The Man Without a Country*, by Edward Everett Hale.

#### Purposes.

1. *Practical.* To teach the children to know and use *good English*. By memorizing good English prose, it must become instilled in the mind and finally become a part of the vocabulary,—hence the need of review or repetition.

2. *Ethical.* To teach and help to a love of family and to a love of country.

#### Method.

*Exemplification.* Children place upon desks selections from *The Man Without a Country*. The teacher reads the selection carefully and the pupils go through it once slowly and with expression, as taught.

*Interpretation.* Questions are asked as to the meaning and explanations are given of certain parts, *e. g.*—"What had just taken place to which the words 'Let *that* show you,' refer?" Try to have children realize the intense feeling of Nolan in the part beginning, "And for your country, boy, and for that flag," etc. Ask—"Why are the words 'Through a thousand hells' used?" Here, "hell" means "place of death." Spend three or four minutes upon this rapid questioning for interpretation.

*Imitation.* Several pupils read the selection.

*Memorizing* (habituation). By reading and study and repetition, individuals and class gradually learn the selection. Finally, there is repeating of the passage in concert, with quiet voices, from memory. If certain parts have been forgotten, have children open papers and study for a few minutes. Then drill a little, orally, upon these parts. Frequently spend a few minutes upon individual recitation.

Until learned, this is to be upon the blackboard:

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"Youngster, let that show you what it is to be without a family, without a home, and without a country. And if you are ever tempted to say a word or to do a thing that shall put a bar between you and your family, your home, and your country, pray God in His mercy to take you that instant home to His own heaven. Stick by your family, boy, forget you have a self, while you do everything for them. Think of your home, boy; write and send and talk about it. Let it be nearer and nearer to your thought, the farther you have to travel from it; and rush back to it when you are free, as that poor black slave is doing now. And for your country, boy," and the words rattled in his throat, "and for that flag," and he pointed to the ship, "never dream a dream but of serving her as she bids you though the service carry you through a thousand hells. No matter what happens to you, no matter who flatters you or who abuses you, never look at another flag, never let a night pass but you pray God to bless that flag. Remember, boy, that behind all these men you have to do with, behind officers, and government, and people even, there is the Country Herself, your Country, and that you belong to Her as you belong to your own mother. Stand by Her, boy, as you would stand by your mother."

### 4. GRADE V. *Geography Review.* (Question-and-answer.)

Time, 30 min. TOPIC: **India.**

#### **Purpose.**

1. *General.* To review the location of land and water areas, heat areas, water and ocean currents, food and mineral areas.

2. *Specific.* To review position, size, form, surrounding waters, islands, surface, rivers, productions, commerce, inhabitants, and cities of India.

*Commands* 1. Calling: "Class ready for geography."

2. Dismissal: "The lesson is over."

*Material.* Large map of Asia. Production map of Asia. Papier-mâché map of Asia. Maps of Asia (in books). Pointer. Post-cards. Pictures in geography books. Paper. Pencils. Crayon.

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The following topics on blackboard:

**Recitation.** *India.* (Blackboard analysis.)

Position—boundaries. Extent. Size. Form.

*Surrounding waters:* Indian Ocean. Arabian Sea. Bay of Bengal.

*Islands:* Ceylon.

*Surface:* Plateaus—Deccan. Mountains—Himalaya.

*Rivers:* Ganges. Indus. Brahmapootra.

*Climate.*

*Productions:* 1. Agricultural: Grains. Fruits. Spices. Rice. Opium.

2. Minerals—Diamonds.

3. Manufactured—Calico.

*Commerce.*

*Inhabitants.*

*Government.*

*Cities:* Calcutta. Bombay. Madras. Delhi. Benares.

### 5. GRADE V. *Drawing Advance.* (Exercise.)

Time, 30. min. TOPIC: **The Black-Eyed Susan** (color lesson).

#### **Purpose.**

1. To secure shape, size, and color values.
2. To give to the child an impressive idea of complementary colors, as he sees them in Nature.
3. To have the child study the way Nature has shaded the colors.

#### **Material.**

Drawing-paper, 6 x 9. Paints. Paint cloth.

#### **Method.**

Give to each of the children a flower.

*Explanation.* Have them handle and study its parts:

1. The shape, color, and shading of the petals.
2. The shape, color, and shading of the stem.
3. The shape, color, and position of leaves.

*Exemplification.* The teacher paints a flower, keeping a little in advance of the pupils.

*Imitation.* After the children have become very familiar with

## APPENDIX

the flower, let them begin with the center; then the petals, using the clear paint on the brush.

From the blossoms let the pupils gradually work down the stem, putting in the leaves as they see them.

The leaves and rays are hardly more than brush strokes, with here and there a little more color added, to secure darker tones or shadows.

*Repetition.* A second attempt to paint this will be much more satisfactory than the first, especially in the mixing of the colors.

*Memorandum.* Have children take great care in cleaning and thoroughly drying boxes.

### 6. GRADE IV. *Physiology Advance.* (Inductive.)

#### TOPIC: The Teeth.

##### Purpose.

*General.* To teach the children facts that concern their health.

*Specific.* To train the children to care for their teeth.

##### Material.

*Chart.* Diagram on board.

*Preparation.* The teeth are really the first organs of digestion. Since they play so important a part, we should learn how to care well for them.

##### Method.

*Experiment.* Effect of acid upon lime.

*Presentation.* Structure of tooth (from chart or diagram).

I. White—shiny—smooth—hard (rougher under gum).

II. Softer.

III. Pulpy (nerves and blood-vessels).

Tooth usually decays from outside inward. Hence, by keeping the outside clean, we can help to keep the teeth in good condition.

How the enamel may be destroyed.

Tooth is lime compound.

*Association.* Food decomposes (candy). Acid forms. Result (experiment).

*Generalization.* Therefore, teeth should be cleaned after eating anything. Hard toothpicks are bad for the gums. Nuts

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should be thoroughly shelled. Very hot and very cold drinks make trouble. Use pure water with soap or tooth-powder to clean teeth.

*Application.* Decaying teeth not only cause the owner ill-health and suffering, but are also offensive to others. Remember that there are others in the world, and they would like to enjoy your wholesome appearance.

### 7. GRADE III. *Reading Advance.* (Exercise.)

Time, 20 min. TOPIC: **A Brave Boy.**

#### **Material.**

Baldwin Third Reader.

#### **Purposes.**

(a) To get thought from the printed page.

(b) To get new words.

*Exemplification.* Phonic word preparation.

Syllabicate and place on the board the following words, omitting all diacritical and accent marks.

*Imitation.* Drill by class and individually with special attention to *th, wh*; final *t, d, n*.

Andy Moore	thrown	stout
frec kled	rate	rough
bush y	grate ful	e nough
thought	bro ken	dan ger
bea vers	shan ty	stretched
en gine	meant	whis tled
engi neer	no tice	purs es
past	mere	col lege
last	puff ing	dis tant
dis ap pear	plen ty	dis tance
hap pened	stud ied	class es

*Interpretation.* Ask for meaning of difficult words. Explain the following phrases:

(a) "disappear in the distance."

(b) "distant noise."

(c) "passengers were grateful."

(d) "took no notice."



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Erase the list before the actual reading lesson begins.

*Questions-and-Answers.* Awaken the pupil's expectation.

*Study.* Silent reading. Have pupils read ¶ 1; then ask them with closed book to answer questions on the paragraph.

*Interpretation.* Proceed through the lesson, paragraph by paragraph.

*Question-and-Answer.* 1. Describe Andy Moore.

2. Tell where his home was. What did he like to do?

3. Describe the house.

4. What could Andy see from his house?

5. Did Andy wish to ride?

6. What did he see one day?

7. What caused the noise he heard?

8. How did Andy try to stop the train?

9. Tell how the engineer felt at first; later.

10. How did the passengers reward Andy?

*Exemplification and Imitation.* Study the following sentences for oral expression and have individuals read to the class.

(a) "As for what people would say about it, what did he care?"

(b) "Just then he heard a low, distant noise."

(c) "Dear, dear! the cars were coming!"

(d) "They would soon be there!"

(e) "On, on came the cars."

(f) "But Andy stood still and did not move an inch."

(g) "The men said, 'God bless the brave boy!'"

*Habituatation.* Exercises to show an understanding and mastery of what has been attempted, including:

*Utilization.* 1. Oral reading by pupils.

2. Reproduction of the content of sections, and

3. Free reproduction of the whole content, orally.

8. GRADE II. *Reading.* (Observation Drill Exercise.)

Time, 20 min. TOPIC: **Word Review.**

*Presentation.* Fifty words are printed in columns upon the board. Repeat in several columns words that are especially troublesome.

*Exemplification.* Children, as called upon, pronounce the words,

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taking them in order without any pointing by the teacher. This requires each child to watch attentively. Call often upon the slower ones.

*Repetition.* Change the method slightly the next time. The teacher points quickly to a word, and, after removing the pointer, asks a child to name the word indicated. This also requires close attention, and gives the teacher a good opportunity to clinch the words by pointing to a word many times and calling upon the ones who do not recognize it readily to name it.

*Testing.* The teacher may then change her method again, and say, *e. g.*, "Find 'beautiful' in the first column," etc. This adds interest and speed. Each child must look at each word in the column specified. By designating the column, we keep the children from looking, "hit or miss," all over the board.

### 9. GRADE I. *Number.* (Dramatization Exercise.)

Time, 20 min. TOPIC: **Nine.**

#### **Aims.**

(a) *General.* To gain accuracy, facility, and rapidity, and to make process automatic.

(b) *Specify.* To teach facts of the number 9:  $5 + 4$ ,  $6 + 3$ ,  $7 + 2$ ,  $8 + 1$ , and subtraction facts:  $3 \times 3$ ,  $9 \div 3$ ,  $\frac{1}{2}$  of 9.

*Basis of Lesson.* Children's knowledge of (1) facts through the number eight previously taught and drilled upon, (2) terms used, as "add," "take away," "how many," "times," (3) usual method of instruction.

#### **Material.**

Bundle of ten toothpicks; pile of ten gun-wads for each child; chart of facts through nine; blackboard and crayon.

*Exemplification and Imitation.* Senses appealed to: (1) touch, (2) sight, (3) hearing.

(a) Touch and sight. Children use (1) gun-wads to make pictures as teacher directs, (2) break toothpicks to get  $\frac{1}{2}$  of 9, (3) crayon or pencil to draw same, and then to express it, using figures.

(b) Sight and hearing. Chart drill.

*Habituation.* Seat work. (1) Domino cards. (2) Other cards, etc.

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### 10. GRADE VIII. *United States History.* (Written Test.)

Time, 50 min. TOPIC: **One-half year's work**,—1800-1865.

1. In each case, give two or more reasons why each of the following men is famous,—(a) Thomas Jefferson; (b) Zachary Taylor.
2. (a) What were two causes of the War of 1812? (b) What victory was won in the war by Andrew Jackson?
3. What were the circumstances that led to the annexation of Texas?
4. (a) What was the Dred Scott case? (b) What was its effect upon public sentiment in the North?
5. Explain the meaning of the term "State's Rights."
6. Draw a sketch-map of the United States, and upon it locate (a) Bull Run, (b) Pittsburgh Landing, (c) Hampton Roads, (d) New Orleans, (e) Gettysburg, (f) Vicksburg, (g) Chancellorsville, (h) Atlanta, (i) Richmond, (j) Washington.
7. Why did President Lincoln issue the Emancipation Proclamation?
8. Tell about any two important inventions in this period.
9. Name one important author in this period, and at least one of his productions.
10. (a) What is the Congress of the United States? (b) Tell how the members are chosen.

## APPENDIX VI

### ILLUSTRATIVE TEACHERS' EXAMINATIONS

#### I. ELEMENTARY TEACHERS' EXAMINATIONS

Ohio uniform teachers' examination questions for county teachers' examination for the Elementary School Certificate, prepared under the direction of the State School Commissioner and sent out from his office in accordance with Section 7819 of the General Code, for August, 1910.

##### 1. ARITHMETIC

1. A pole 72 feet long was broken off so that  $\frac{2}{3}$  of the shorter piece was  $4\frac{4}{5}$  of the longer piece. What was the length of each piece?
2. Name the elements of the circle and give the values of each term in the terms of the other dimensions given.
3. A rectangle whose diagonal is 40 feet contains  $3\frac{3}{8}$  acres; what is the diagonal of one that contains four times as much? What are the dimensions of the latter rectangle?
- 4-5. Solve and explain as to a class of beginners: A dealer bought a drove of cattle for \$1800. He sold them at public sale, taking 90-day notes drawing interest at 6% for \$2180. He discounted the notes in bank at 8%. What per cent. did he gain on the transaction?
6. I sold a farm of 160 acres at \$75 per acre, which annually yielded an income of \$6 per acre, and invested the proceeds in 8% stock at 80, including the brokerage. What was the change in my income?
7. It is eighteen minutes until 12 o'clock; when will the minute hand overtake the hour hand? How far did it travel?

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8. If the gravel for a street  $\frac{3}{4}$  of a mile long cost \$4200 for depth of 9 inches deep, the width of the street being 50 feet, what would be the cost of macadamizing a street  $1\frac{1}{4}$  miles long, 60 feet wide at a depth of 8 inches if the stone cost 80% more than the gravel?

### 2. PHYSIOLOGY

1. What are the chief offices of the tongue? Of the eustachian tube? Of the spleen?
2. Define mind-study; intellect; sensibility. How are these affected by the environment?
3. What is malaria? What are its causes? Its prevention?
4. Describe two distinct kinds of poisoning. Give the antidotes for each.
5. Describe in detail the inner ear.
6. In what way do the physical defects of children operate upon their morals?
7. Define the different processes of digestion. What are the effects of narcotics and alcoholics upon each of these processes?
8. Give all the uses of the saliva. Of the different divisions of the nervous system.

### 3. GRAMMAR

1. What is grammar? A grammar? What is historical grammar? A language? Etymology?
2. Give the past tense and past participle of *do*, *set*, *fly*, *strew*, and *weave*.
3. Write the singular and plural possessive of deer, apple, ox, Mary, German, ally, chief, buffalo, man-of-war, goose-quill.
4. What is an adjective clause? Show one in a sentence. Abridge this sentence. Parse each word in the abridged sentence.
5. Write a paragraph of not less than ten lines on the topic "The Material Benefits of the Study of Language and Composition."

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6. What is a phrase? Classify phrases and give examples of each in sentences.
7. Distinguish between finite and infinite verbs; between regular and irregular verbs; between deponent and reflexive verbs. Give examples.
8. Diagram and parse the italicized words:  
    *"So thick a haze o'erspreads the sky,  
    They cannot see the sun on high;  
    The wind hath blown a gale all day;  
    At evening it hath died away."*

### 4. GEOGRAPHY

1. Name the great religions of the world. In what countries do they exist? Who are the leading races of people that worship these religions?
2. Account for the location and growth of Cincinnati. Of Toledo. Of Melbourne.
3. What are the principal resources of the Rhine valley? Of the Valley of the Ganges? Of the countries west of the Andes Mountains?
4. Give the latitude of England and of Tasmania. Which is colder? Why?
5. Name some country famous for the production of diamonds; of quinine; of salt; of hemp; of zinc.
6. Compare Oregon and Tennessee in area, population, minerals, and natural resources.
7. Where are the following places and for what noted: Plains of Abraham? Barcelona? The Soo? Trinidad? Mecca?
8. What can you tell about the disputed boundary-line between the United States and Mexico? About the proposed admission of two more States to our Union?
9. Name some coal-producing counties in Ohio. The tobacco counties. The wine-producing counties. The oil counties. The largest and the smallest county in Ohio.
10. Describe the eastern coast of Asia. Locate the leading cities, capes, islands, and ports of entry.

Examinations were given also in Theory and Practice of

## APPENDIX

Teaching, in United States History, in Reading, in Literature, in Orthography, and in Writing.

### II. ILLUSTRATIVE EXAMINATIONS FOR HIGH SCHOOL CERTIFICATE

#### 1. GERMAN

##### 1. Translate:

Indessen verursachten die Erziehung seiner *Tochter* und das Leben in der Stadt erhöhte *Ausgaben*. Ein Defizit von fast zwei tausend *Thalern* war die Folge. Da überredete Ehrentahl den Baron, ihm zehntausend Thaler *Vorschuss* zu geben, um ihm zu beweisen, wie leicht es auch für einen Edelmann sei, mit barem Gelde ein schnelles und vortheilhaftes Geschäft zu machen. Mit den zehntausend Thalern wurde ein Vorrath Holz von einem betrügerischen—dem Freiherrn unbekannten—*Holzhändler* gekauft, der, wie Ehrenthal behauptete, grade jetzt das *Geld* brauchte und nicht auf eine günstigere Zeit warten könnte, um das Holz zu seinem Werthe zu verkaufen. Der Freiherr glaubte dieser Darstellung; und Wochen später theilte er mit Ehrenthal den Gewinn von viertausend Thalern. Das Defizit des Barons war gedeckt; und Ehrenthals verhängnissvoller Einfluss auf den Edelmann war gesichert.

##### 2. To what declension of nouns do the italicized words belong?

##### 3. Give the principal parts of the following:

Der Mensch, der Schimmel, dieser lange Wald, eine breite Wiese, dieser grosse Bär.

##### 4. Decline the demonstrative in the sg. and plu. of der die das.

(a) Give the interrogative pronouns *wer* and *was*.

(b) Decline the personal pronouns sg. and plu.

##### 5. Conjugate in sg. and plu., all tenses, subjunctive mode, the verb *ich werde gejagt*.

##### 6. Write the principal parts of these verbs: *schreiben, biegen, nehmen, schelten, treffen, werfen, verschwinden, beenden, gebieten, überfallen, entlaufen, erschlagen*.

##### 7. Translate into German:

He is a genuine friend of the workingmen, but he always

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acts in his own interest, which he hopes to increase in time to come. You are not safe in Uri; for the tyrants lend a hand to one another. As she entered the room I noticed that she had been weeping. I endeavored to console her. She would not be consoled, but cried more than ever for the child that had been taken from her by God.

### 2. PHYSICAL GEOGRAPHY

1. How do you account for the soil of Ohio? For the different rocks of Ohio? For the waters of Ohio?
2. Give location of the cotton and wheat belts of the United States. Of the coal regions of the world. Account for these.
3. What is meant by high and low barometer? In what direction do the winds blow in reference to these? What special uses for the barometer?
4. Explain moraines and the different kinds of moraines, and tell how we may know them.
5. Give three sources of the deposits of the sea. What are some of the effects of these deposits?
6. Explain the formation of lakes. Write about the Great Lakes as to size, formation, effects upon the climate and the people, their location, etc.
7. Where in the schools should the teaching of physical geography be begun? Why so? How?
8. Describe the physiography of the coasts of Africa.
9. Make a list of the world's great lowlands and give the climates and productions of each.
10. State the origin and form of sand-reefs.

### 3. PHYSICS

1. Describe and give the principles of the speaking-tube. Give an experiment to show that sound-waves are not transmitted in a vacuum.
2. What is a gas? Give a law for the expansion of gases. What apparent exceptions to the law?



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3. Give three different ways in which a body may be charged with electricity. How may we know that a body is charged with electricity? Give some of the effects of a body being electrically charged.
4. Make drawings showing the experiments necessary to explain the pendulum and its uses. Write your deductions from these experiments.
5. A belt runs from a fly-wheel to pulley. The pulley is 16 inches in diameter and makes 1800 revolutions per minute while the fly-wheel rotates 150 times per minute. What is the diameter of the fly-wheel?
6. How can you tell the pole of a helix? How tell the direction of the current?
7. Write the rules of capillary attraction. Illustrate with experiments that you would use in a class.
8. What is refraction of light? Write the laws for refraction. Give the results of the refraction of light and the uses of it.

### 4. CHEMISTRY

1. Give two methods of preparing oxygen; write equations.
2. What is an acid? A base? A salt? Name two of each, giving chemical formula in each instance.
3. State and explain Boyle's law.
4. Calculate the weight of sodium chloride necessary to produce 25 grams of hydrochloric acid.
5. Give one method of preparing chlorine; write equations.
6. Explain the structure and the principle of the miner's safety-lamp.
7. Explain one process for extracting iron from its ore.
8. State briefly the chemistry of ordinary combustion.
9. What are the following and how produced:  $\text{KCIO}_3$ ?  $\text{MnCl}_2$ ?  $\text{Cu}(\text{NO}_3)_2$ ?
10. Name the parts of a flame. Give the chemistry of the flame.

### 5. GEOMETRY

1. Define axiom, postulate, corollary frustum of a cone, and spherical triangle.
2. Prove: All radii of sphere are equal.

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3. Prove: If the two chords of circle are perpendicular to each other, the sum of the four circles described on the four segments as diameters is equivalent to the given circle.
4. Construct an angle of  $18^\circ$ ; an angle of  $120^\circ$ .
5. Prove: Two altitudes of a triangle are inversely proportional to the corresponding bases.
6. Find the locus of points equidistant from the three edges of a trihedral angle.
7. Prove: The areas of two triangles which have an angle of the one supplementary to an angle of the other are to each other as the products of the sides including the supplementary angles.
8. Construct a triangle, given its base, the ratio of the other sides, and the angle included by them.

### 6. CIVIL GOVERNMENT

1. Give the composition of the Supreme Court of the United States at this date. What is the salary of its members? When and how can its members retire?
2. What can you say of the effects upon our civic affairs of a political campaign? Of what value are political campaigns?
3. What were some of the laws passed by Congress at its recent session? Describe one.
4. Who is a foreigner? How may he become an American citizen?
5. Describe our bankruptcy laws.
6. Write about some of the efforts in America to form a union during colonial times.
7. Define jurisdiction, appellate jurisdiction, original jurisdiction, right of appeal, and habeas corpus proceedings.
8. Describe fully how the Constitution may be amended. Give the aims of the last three amendments adopted.
- 9-10. Write a short description of the organization and manner of work of our State Legislature.

Examinations were given also in Latin, Algebra, Botany, Rhetoric, Literature, Physiology, General History, and Theory and Practice of Teaching.

## APPENDIX VII

### RULES AND REGULATIONS FOR A DISTRICT SCHOOL

#### SUGGESTIONS

- I. Have as few rules and regulations as possible.
- II. Talk about them but little.
- III. Read them at the beginning of the year to the class.
- IV. Keep them on file (in print or in writing) for reference in case of need.
- V. Never make a rule after the event and then punish an offender.
- VI. Make only such rules and regulations as are needed to cover cases likely to arise.
- VII. In actual practise, it may be necessary to make some special rules for boys and others for girls, and some for the older pupils and others for the younger.

#### RULES

1. The hours of the school-day are:  
School begins ——— A.M.  
Recess at ——— to ——— A.M.  
Morning session ends ———  
Afternoon session begins ——— P.M.  
Recess at ——— to ——— P.M.  
School closes ———
2. Pupils are to be in their seats when school begins.
3. Pupils may leave school only with the teacher's permission.
4. Pupils absent or tardy are to bring a written excuse from home.

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5. Pupils whose tardiness or absence is unexcused may be required to make up the lost time after school.
6. Pupils may be detained after school not exceeding —— minutes.
7. There must be no fighting on the school grounds or near them.
8. Profane and vulgar language is forbidden.
9. All damage to school property must be paid for. All wilful damage must be paid for, and a fine paid in addition.
10. Pupils may speak quietly to other pupils when necessary, but there must be no whispering or note-writing.
11. Pupils must not use tobacco. [A diploma of graduation will not be granted to any user of tobacco in this school.]
12. Politeness, kindness, and common sense are the orders of the day here.

## APPENDIX VIII

### SUGGESTED ENGLISH EXERCISES IN CORRELATION WITH OTHER SUBJECTS FOR BOTH URBAN AND RURAL SCHOOLS

1. *Government.* Debate.—*Resolved*, That it is better to be a policeman than a fireman. Also, postman *versus* school principal. Such debates may precede composition-writing on these themes.
2. *Industry.* Debate.—*Resolved*, That a carpenter should have the same wages as a brick-mason. Debate.—*Resolved*, That the farmer has a happier life than the grocer.
3. *History*, any Grades. Discuss in contrast any pairs of great men and women. See page 255, above, for suggestions as to portfolios of material.
4. *Geography.* Debate.—*Resolved*, That India is a better country to live in than China. Debate.—*Resolved*, That the United States should annex Canada.
5. *Social Life.* Debate.—*Resolved*, That the doctor is a more useful citizen than any other kind of man. Debate.—*Resolved*, That everybody before graduation should be taught some trade at school.

There are many ways to secure the interest of the boy and girl, but whether in High School or in Second Grades there is no better way than daily by practical themes of conversation and of composition to let him and her see for themselves that school is a part of real life, dealing with real things and with real persons.



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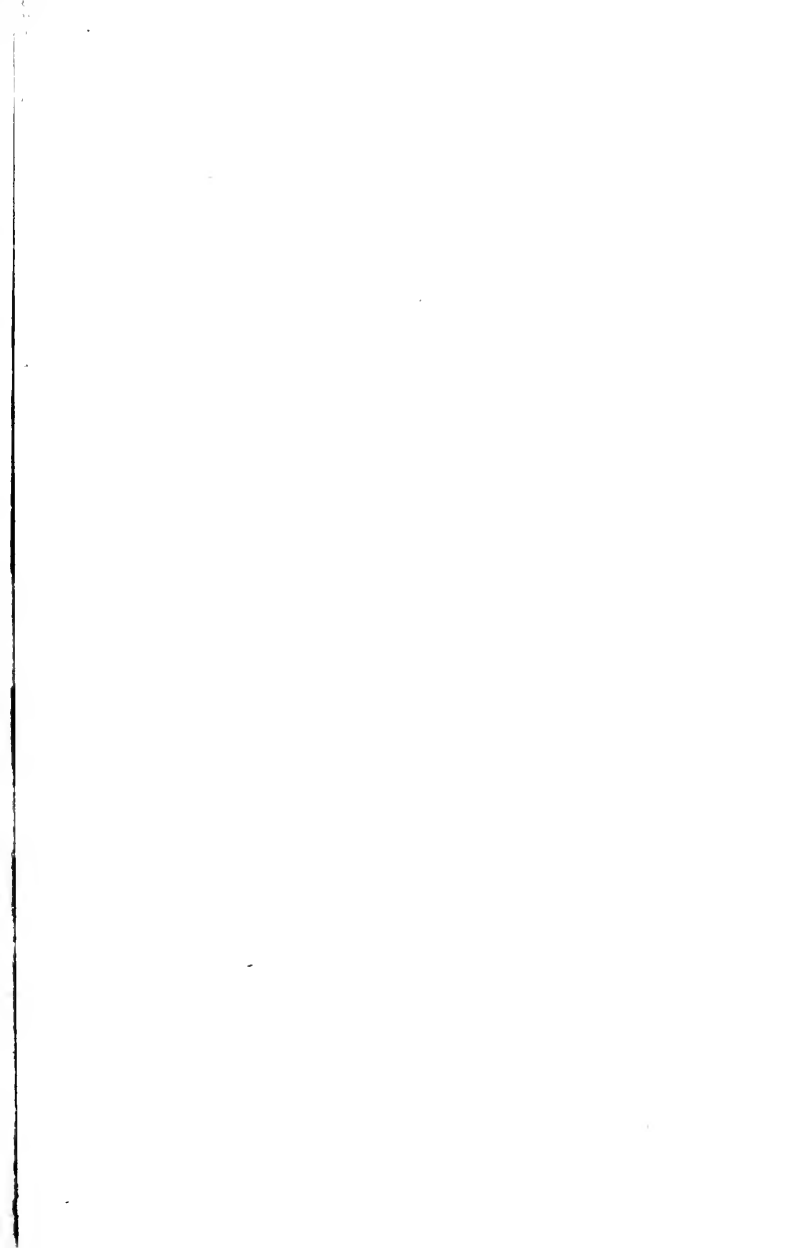
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